



Comisiwn **Seilwaith**  
Cenedlaethol **Cymru**  
National **Infrastructure**  
Commission **Wales**

# Annual Report 2022/23

December 2023



The National Infrastructure Commission for Wales (NICW) was established in 2018 as an independent, non-statutory, advisory body to Welsh Ministers.

Its key purpose is to analyse, advise and make recommendations on Wales' longer term strategic economic and environmental infrastructure needs over a 5–80-year period.

NICW conducts studies into Wales' most pressing infrastructure challenges and will make recommendations to the Welsh Government.

The advice provided by NICW will be impartial, strategic and forward looking in nature.

NICW is accountable to the Welsh Ministers for the quality of its advice and recommendations and its use of public funding.

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# Our first full year of delivery:

## An Introduction from the Chair and Deputy Chair

### **Welcome to the National Infrastructure Commission for Wales' annual report for 2022/23.**

The last twelve months has seen NICW build a team of highly motivated and engaged Commissioners aligned around a core set of values. We have been active in a wide range of work areas, and engaged individually and as a team with numerous stakeholders from different sectors.

We have also tested ourselves on delivery; we commissioned research on renewable energy, and – with the support of an expert advisory group – formed our own views on ways in which renewable energy could be deployed faster in Wales, whilst delivering greater benefits to the people of Wales.

Our second year of project activity – on mitigating the impact of flooding in Wales by 2050 – is underway, and we are already scoping the third year of activity, on understanding communicating the existential risks and hazards arising from climate change in the very long term.

As well as these major projects, we have also been able to provide opinions and undertake investigations into other policy areas such as urban biodiversity, digital infrastructure and the planning system. We have successfully collaborated with other organisations to deliver events which bring people together to discuss important issues, such as water infrastructure and the consenting of large projects. This collaboration, along with more formal engagement with Senedd Committees on infrastructure-related issues, is indicative of our growing influence on policy in Wales.



There are a number of other positives to take from the last year. In a particularly busy year for Wales' transport policy, the implementation of the Roads Review, and the 20mph 'default' speed limit in residential areas, has sparked interest from transport policy-makers around the world. We await the data over the coming years on the 'real world' success in reducing the social, environmental and financial costs of transport.

Whilst we have made some important strides, we are mindful of the context in which we operate; severe financial pressure on the public sector in Wales; temperatures that are smashing records, even beyond 'worst case scenarios'; and a public discourse on the transition to net zero that is

at risk of being hijacked by people acting in bad faith or self interest. Our work over the coming years will be shaped by the need to act and communicate our views in accordance with the best available scientific evidence.

We present this report to the Welsh Government and interested stakeholders and look forward to discussing its contents with the Senedd in our annual scrutiny session with the Climate Change, Environment and Infrastructure Committee.

We would like to thank all of those stakeholders that have worked with us over the past year that have helped us make a positive difference.



**Dr David Clubb**  
Chair



**Dr Jenifer Baxter**  
Deputy Chair

# Our aims, objectives, outcomes and values

Our organisational values and ways of working were established in our first year as our guiding principles and to reflect our remit set out by the Welsh Government.

## Our aims:

1. To provide radical, challenging and evidence-informed advice and guidance to a variety of audiences, but principally Welsh Government, that will inform and future-proof decisions on infrastructure deployment from 2030–2100.
2. To use the frameworks of the Well-being of Future Generations (Wales) Act 2015, the climate and nature emergencies, and the socio-economic duty, to guide our deliberations.
3. To support initiatives, organisations or policies that aim to create and maintain resilient and adaptable infrastructure that delivers well-being until 2100 and beyond.



*Commissioners at the Centre for Alternative Technology, Machynlleth*

## Our objectives

Our objectives align with the Welsh Government Programme for Government.

**Build an economy based on the principles of fair work, sustainability and the industries and services of the future.**

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**Build a stronger, greener economy as we make maximum progress towards decarbonisation.**

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**Embed our response to the climate and nature emergency in everything we do.**

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**Make our cities, towns and villages even better places in which to live and work.**

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**Celebrate diversity and move to eliminate inequality in all of its forms.**

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## Our outcomes

In last year's Annual Report<sup>1</sup> we defined a range of outcomes that we anticipated being able to deliver from 2022 to 2025, the period that the current Commission has been appointed to serve. This year we are able to assess how we are performing against these outcomes.

| Desired outcome  | Summary performance to date   |
|--|---|
| Future policy that improves the capture of wealth from renewables; that better manages land for various infrastructure uses; and that builds on a better understanding of local community perspectives | We delivered a renewable energy research project that produced 11 recommendations for the Welsh Government. The report was launched on 17 October 2023. We await a formal response from Welsh Government.   |
| Future policy and practice is better informed about ways to minimise the impact of flooding on Wales' communities and infrastructure.  | We have formed a Project Advisory Group and carried out scoping work to pinpoint the areas of activity we wished to focus on.<br><br>We have contracted research on flooding to inform the Commission about ways to reduce the future impact of flooding.<br><br>We intend to report on our recommendations to the Welsh Government in Autumn 2024.   |
| NICW and other stakeholders are better informed about how to communicate long-term risks to communities most vulnerable to climate change impacts.   | We have issued a Call for Evidence asking for views on communication of long-term risks and impacts. This is part of the scoping that will lead the way for a 'full' project in 2024/2025.  |
| NICW's activities and recommendations are better informed by a wide and diverse range of stakeholders.   | We have engaged with a wide variety of stakeholders, in meetings, events and in the media. These are listed on our website and in our Digital Garden <sup>2</sup> , a pilot digital project to provide more detailed information on our activity.   |
| An enhanced profile and reputation for NICW.   | Whilst it is difficult to objectively assess our reputation, our profile has increased considerably over the last twelve months. We carried out a survey on how we are perceived and received 15 responses. We view this as our baseline for future feedback opportunities. We also have good statistics on activity on our website <sup>3</sup> . These statistics are fully transparent and accessible by visitors to the site. |

1. [nationalinfrastructurecommission.wales/wp-content/uploads/2022/11/45761-NICW-Annual-Report-2021-Eng\\_WEB-FINAL.pdf](https://nationalinfrastructurecommission.wales/wp-content/uploads/2022/11/45761-NICW-Annual-Report-2021-Eng_WEB-FINAL.pdf)

2. [digitalgarden.nationalinfrastructurecommission.wales/](https://digitalgarden.nationalinfrastructurecommission.wales/)

3. [esoteric-muskrat.pikapod.net/share/e6QRzcMX/NICW](https://esoteric-muskrat.pikapod.net/share/e6QRzcMX/NICW)

## Our values

During 2023 we agreed upon a set of values that describe how we aspire to deliberate and operate. We wrote a short piece describing them on the NICW website<sup>4</sup>. Our values are:

- **Inclusive:** creating a warm and friendly environment within which people feel supported, and confident to express their views
  - **Transparent:** pushing the boundaries of reporting in near-real-time on our engagement, and demonstrating publicly how we deal with internal disagreements
  - **Radical:** Commissioners have committed to working out of their comfort zones;
- we aim to deliver advice, opinions and recommendations that diverge from 'business as usual' in order to alleviate the nature and climate emergencies and deliver on our remit
- **Challenging:** The Commissioners challenge the status quo with the needs of future generations and an aspiration to do better for the future citizens of Wales
  - **Practical:** The Commission's work is focused on actionable recommendations that move us towards a more sustainable infrastructure for the needs of the people of Wales.



*The National Infrastructure Commissioners for Wales*

4. [nationalinfrastructurecommission.wales/2023/05/03/our-values/](https://nationalinfrastructurecommission.wales/2023/05/03/our-values/)

# NICW year in review: 2022/23

## Infrastructure policy context

### Urban biodiversity

One of the first topics we examined as a Commission this year was the challenge of increasing biodiversity in our urban areas. This was prompted by the publication of the Welsh Government Deep Dive<sup>5</sup> in October 2022 which we responded to with a blog post<sup>6</sup> offering our initial views. Subsequent to this, we were also held sessions with the Woodland Trust<sup>7</sup> and Welsh

Government planning policy officials to discuss the issues in more detail, particularly in how new developments can contribute to increasing the opportunities for biodiversity to thrive. We held a development day in January to find out more about the Building with Nature<sup>8</sup> standard and how it can be used by developers to clearly show their commitment in this area. We responded<sup>9</sup> to the Welsh Government's planning policy consultation and noted the publication of revised planning policy on this area in the Autumn of 2023.



*Building with Nature Training*

5. [www.gov.wales/biodiversity-deep-dive-recommendations](http://www.gov.wales/biodiversity-deep-dive-recommendations)
6. [nationalinfrastructurecommission.wales/2022/10/17/biodiversity-the-missing-urban-link/](http://nationalinfrastructurecommission.wales/2022/10/17/biodiversity-the-missing-urban-link/)
7. [nationalinfrastructurecommission.wales/230124-meeting/](http://nationalinfrastructurecommission.wales/230124-meeting/)
8. [www.buildingwithnature.org.uk/](http://www.buildingwithnature.org.uk/)
9. [nationalinfrastructurecommission.wales/2023/05/25/biodiversity-in-planning-policy/](http://nationalinfrastructurecommission.wales/2023/05/25/biodiversity-in-planning-policy/)

## Roads review

Transport policy in Wales has never been far away from the headlines during our first year of work. The Welsh Government's Independent *Roads Review*<sup>10</sup> report was published in February 2023. In anticipation of this, we published our initial thoughts<sup>11</sup> shortly before. We considered that roads, and the services they enable, are essential to many components of life in Wales, but that the balance of policy is skewed in favour of private car transport, and a new approach is required. The publication of Llwybr Newydd the previous year had brought about a change, however, this change needed to be carried forward into investment decisions. After publication of the review, we provided our response<sup>12</sup>, broadly welcoming the report and providing additional suggestions on how transport policy and investment decisions could be improved further. We were invited to discuss our thoughts with the media<sup>13</sup>.

## Infrastructure Bill

One specific area which the Commission was asked to be involved with by the Senedd's Climate Change, Environment and Infrastructure Committee (in its report on the annual scrutiny of the National Infrastructure Commission for Wales<sup>14</sup>) was scrutiny of the Infrastructure (Wales) Bill. Commissioners received a briefing on the emerging thoughts surrounding the Bill from Welsh Government officials shortly before the publication of our last annual report, noting that consultation had occurred in 2018. The Bill was laid in June 2023 and the Commission,

working with the Future Generations Commissioner, submitted our response<sup>15</sup> to the Senedd Committee's consultation in July.

The Commission wanted to ensure that, in responding in more detail to the Senedd Committee on the Bill that it had had the opportunity to hear from as wide a range of stakeholders as possible. Therefore, in collaboration with the Royal Town Planning Institute we held an event<sup>16</sup> to gather relevant over 40 organisations together to discuss issues surrounding the Bill. These discussions were extremely helpful and assisted us in giving oral evidence<sup>17</sup> to the Committee later that week. We recommended that the Bill included a more robust approach to community engagement with the creation of statutory guidance. We will continue to monitor the Bill's passage through the Senedd and will provide further assistance when subordinate legislation is published, to help ensure the detailed implementation of the Bill is optimised.



*Infrastructure (Wales) Bill Stakeholder Event, Cardiff*

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10. [www.gov.wales/future-road-investment-wales](http://www.gov.wales/future-road-investment-wales)
  11. [nationalinfrastructurecommission.wales/2023/02/06/cars-roads-wales/](http://nationalinfrastructurecommission.wales/2023/02/06/cars-roads-wales/)
  12. [nationalinfrastructurecommission.wales/2023/02/15/reviewing-roads-review/](http://nationalinfrastructurecommission.wales/2023/02/15/reviewing-roads-review/)
  13. [nationalinfrastructurecommission.wales/wp-content/uploads/2023/02/230212PoliticsWales.mp4](http://nationalinfrastructurecommission.wales/wp-content/uploads/2023/02/230212PoliticsWales.mp4)
  14. [senedd.wales/media/y1pnpdea/cr-ld15705-e.pdf](http://senedd.wales/media/y1pnpdea/cr-ld15705-e.pdf)
  15. [nationalinfrastructurecommission.wales/2023/07/31/infrastructure-bill-wales/](http://nationalinfrastructurecommission.wales/2023/07/31/infrastructure-bill-wales/)
  16. [www.linkedin.com/feed/update/urn:li:activity:7109457238200565760](https://www.linkedin.com/feed/update/urn:li:activity:7109457238200565760)
  17. [nationalinfrastructurecommission.wales/wp-content/uploads/2023/09/230920\\_English.webm](http://nationalinfrastructurecommission.wales/wp-content/uploads/2023/09/230920_English.webm)

## Grid

Our work on renewable energy (see below) did not initially start out specifically looking at grid issues, due to the potential far ranging scope of the project against the time and resources available to the Commission. However, we did ultimately make recommendations on grid planning. In April, we received a briefing from the Welsh Government on current action in this area. In addition we met with stakeholders to discuss the feasibility issues surrounding the ‘undergrounding’ of new grid lines and the implications surrounding the Welsh Government policy position on this. One important factor which we consider is crucial is coordination amongst the devolved administrations on grid development. To this end we wrote<sup>18</sup> to the Welsh, Scottish and UK Governments on this issue in August 2023. We have received responses from all organisations and hope we can take forward discussion on this area during the coming year.

## Digital infrastructure

A specific remit of the Commission is to keep our previous reports under review. The previous Commission’s report<sup>19</sup> on digital infrastructure was published in 2020. The Welsh Government has since responded to the report and in November 2022 published<sup>20</sup> the results of actions on one of our recommendations; namely, to establish a new ‘barrier busting’ taskforce, with a set of clear objectives. We responded<sup>21</sup> to this the same month highlighting some areas of concern with the report including that it did not address some of the more fundamental issues covered in our recommendations, such as Wales not having enough public funds to support fibre to every home; and many households having to wait years for fibre when other steps could be taken in the interim. We will continue to monitor

the implementation of all our recommendations and look forward to engaging with Welsh Government colleagues and the digital industry sector in the future.

## Events and engagement

### Planning and devolution

The Welsh and English planning systems have been diverging for well over 25 years and these changes have accelerated since devolution with new policy and legal frameworks in place across the two nations. We wanted to discuss these issues with stakeholders to see if the situation has provided Wales with different experiences and better outcomes or if opportunities from devolution had been missed.



*Planning and devolution event in Deganwy*

In March and April 2023, in conjunction with the RTPi, we held events in north and south Wales to discuss these issues. We heard from Sue Essex, former Minister for Environment, Transport and Planning on her initial vision for the planning system in Wales as devolution was getting underway and speakers from across the built environment giving their perspective on whether the devolved Welsh planning system has delivered its potential to date. We will shortly be publishing

18. [nationalinfrastructurecommission.wales/2023/08/04/four-country-coordination-on-grid/](https://nationalinfrastructurecommission.wales/2023/08/04/four-country-coordination-on-grid/)

19. [www.gov.wales/digital-communications-infrastructure-wales-report](https://www.gov.wales/digital-communications-infrastructure-wales-report)

20. [www.gov.wales/barrier-busting-taskforce-report-html](https://www.gov.wales/barrier-busting-taskforce-report-html)

21. [nationalinfrastructurecommission.wales/2022/11/14/barrier-busting-for-digital-in-wales-whos-breaking-down-the-barriers/](https://nationalinfrastructurecommission.wales/2022/11/14/barrier-busting-for-digital-in-wales-whos-breaking-down-the-barriers/)

the report from these events along with our thoughts on what changes could be made to optimise the opportunities presented by the devolution of the planning system in Wales.

### Water infrastructure

In March 2023, in collaboration with the Consumer Council for Water and the Design Commission for Wales, we held an event to discuss water infrastructure issues. Together, we recognise that water is a precious natural resource, and ensuring there is enough for both nature and the people of Wales to survive and thrive is one of the most important issues of our time. We recognise that we need to use water in such a way that we have sufficient amount and quality of this resource, in the right place, whilst meeting our obligations to mitigate against the effects of Climate Change and improve biodiversity.



*Water and Infrastructure Event in Cardiff*

We heard from a range of speakers including the Met Office, Natural Resources Wales and Waterwise to discuss the impacts of climate change on water use, the use of water in new developments and how the public can be engaged on this issue.

### Engagement with stakeholders

Throughout the year, we have met with a range of stakeholders relating to our three main projects as well as those involved in wider infrastructure

issues. We detail these on our website<sup>22</sup> and we look forward to meeting with more organisations and individuals over the coming year that can enrich our knowledge of issues relating to the built environment and infrastructure more generally.

### Study tours

The Commission is keen to deepen its existing understanding of particular infrastructure issues and hear about the new and exciting responses being developed, right across Wales. We therefore organised several study tours in north, mid and west Wales this year.

#### Conwy Valley

In October 2022, we travelled to the Conwy Valley to learn about the initiatives taking place in the area to mitigate the impacts of flooding. We met with Natural Resources Wales and the National Trust to discuss the current flood issues in the area, the use of demountable flood barriers in Llanwrst and the impacts of NRW's work. We also travelled to the upper catchment areas of the River Conwy to learn about how partnership working on areas such as peat restoration and catchment management planning are having a beneficial impact on flood mitigation in the area.



*Viewing flood management techniques in the upper Conwy Valley*

22. [nationalinfrastructurecommission.wales/about/](https://nationalinfrastructurecommission.wales/about/)

## Machynlleth

In February 2023, we travelled to the Centre for Alternative Technology near Machynlleth to hear about the organisation's involvement in innovation in the renewable energy sector. We also discussed with local renewable energy stakeholders about the future of the sector in Wales. We had the opportunity to learn about the Living Wales research programme from the University of Aberystwyth and undertook a visit to the Bro Dyfi Community Renewables project in Machynlleth and took the chance to view their wind turbines up close. We also heard directly from the organisation on the challenges and opportunities afforded to community-based energy generation in Wales. This provided additional useful background information for our renewable energy project (See below).



*Bro Dyfi Community Renewables Site Visit*

## Milford Haven

In June 2023, we visited Milford Haven and undertook a visit of the port and surrounding facilities. The port is one of the recently announced freeports in Wales and Commissioners heard from the Port Authority about the potential that this designation brings along with the challenges for delivery. We visited Pembroke Port and saw, up close, the scale of the infrastructure challenges in optimising renewable energy from our seas. We also took the opportunity to speak to local stakeholders on issues such as skills and training, climate change adaptation and communication as well as hearing from organisations involved with energy generation in the area and the future implications of energy policy.



*Milford Haven site visit*

## NICW organisational development

We are committed to developing ourselves as Commissioners in order to equip us to undertake our roles effectively, communicate successfully both internally and externally, and ensure we are meeting our remit as set out by the Welsh Government. To this end we have allocated time this year to considering the Inner Development Goals<sup>23</sup> in how we work with each other but also develop as individuals.

In order for us to be able to take a long-term view of policy goals and development, we are also seeking to adopt Futures<sup>24</sup> thinking in our work and plan to hold an event next year to bring together infrastructure providers to think spatially about their future plans and requirements and to get conversations going on how these different organisations can start interacting with one another early enough to ensure that effective collaboration takes place.

In association with this annual report, we have also undertaken some reflection on our first full year of work and how we can improve the way we operate to be an even better organisation delivering on our remit.

## Digital systems

During the last twelve months we have continued to develop our digital communication offering, building on a basic website to offer a platform that helps us share our updates and narrative about infrastructure in Wales.

### Website

Our website hosts NICW meeting notes and other publications<sup>25</sup>, records of external engagements and meetings<sup>26</sup>, project information and videos of our appearances in the media, Senedd or on fact-finding visits<sup>27</sup>. It also embeds images from our Pixelfed social media account, and acts as the hub for most of our public activity. Over the course of the year we have made a considerable effort to publish our outputs in web format as well as, sometimes, via pdf. Screen readers often struggle with proprietary formats such as pdfs. This initiative should improve the accessibility of our content

Our web statistics<sup>28</sup> are open for all to explore. In the twelve months since our last report, the website has been accessed more than 15,000 times, with more than 6,000 individual visitors. The statistics demonstrate that our most popular blog post was on cars and roads in Wales, viewed nearly 2,000 times.

The UK was the country of origin of the vast majority (86%) of our visitors, but in total we received visits from 48 countries.

23. [www.innerdevelopmentgoals.org/](http://www.innerdevelopmentgoals.org/)

24. [www.gov.uk/government/publications/futures-thinking-and-foresight-a-brief-guide](http://www.gov.uk/government/publications/futures-thinking-and-foresight-a-brief-guide)

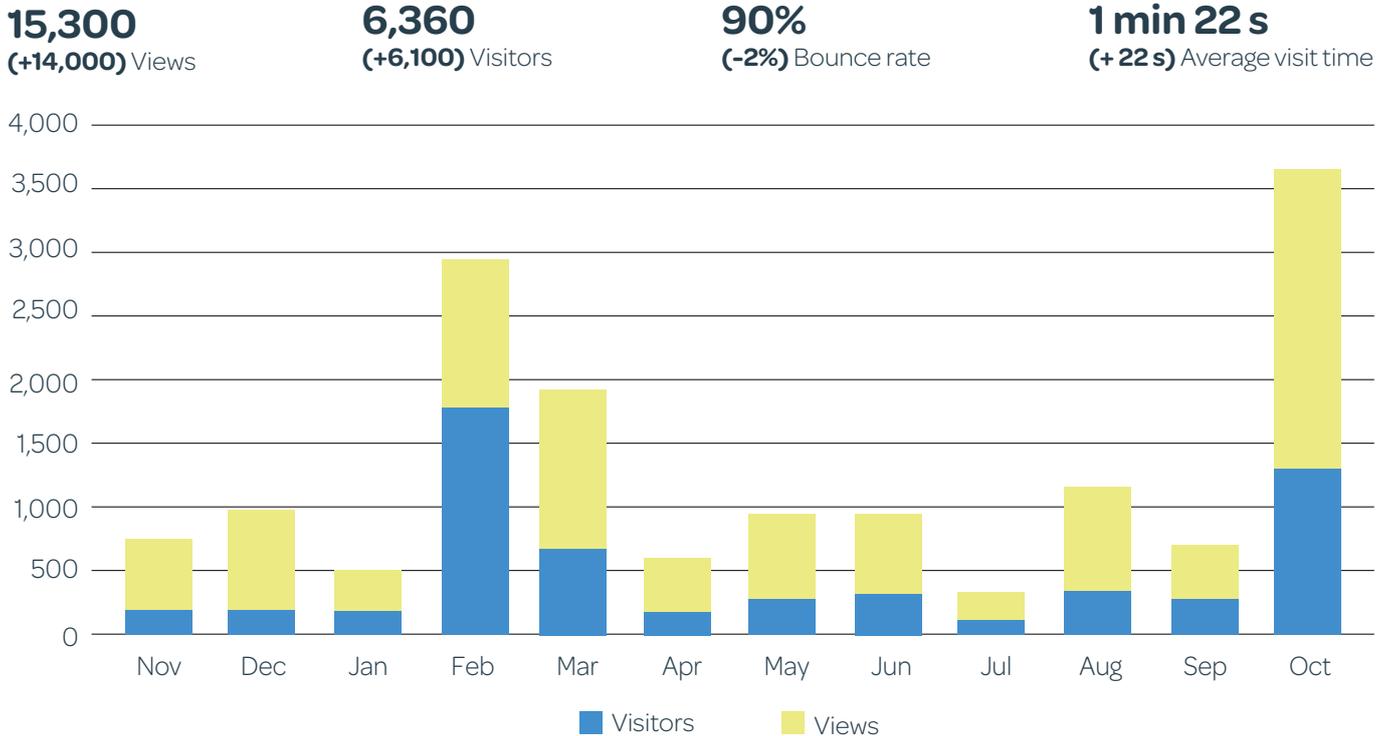
25. [nationalinfrastructurecommission.wales/publications/](http://nationalinfrastructurecommission.wales/publications/)

26. [nationalinfrastructurecommission.wales/about/](http://nationalinfrastructurecommission.wales/about/)

27. [nationalinfrastructurecommission.wales/media](http://nationalinfrastructurecommission.wales/media)

28. [esoteric-musktrat.pikapod.net/share/e6QRzcMX/NICW](https://esoteric-musktrat.pikapod.net/share/e6QRzcMX/NICW)

**Figure 1: Web statistics from the NICW website. Peaks in February and March are likely related to our posts about roads; the peak in October probably results from publication of the renewable energy report**



## Social media

In September 2023 we took the decision to stop posting on Twitter/X. We created a blog post<sup>29</sup> to describe our reasoning.

We are now active on three social media sites:

- 1. LinkedIn<sup>30</sup>**, with currently more than 1,200 followers. This has doubled since the previous year.
- 2. Mastodon<sup>31</sup>**. Our most popular post highlighted three Commissioners with an account on toot.wales, the Welsh server for Mastodon<sup>32</sup>. We have nearly 100 followers on this platform.

- 3. Pixelfed<sup>33</sup>**. An open source social media platform optimised for image sharing. We have over 100 followers on this platform.

29. [nationalinfrastructurecommission.wales/2023/09/28/leaving-twitter/](https://nationalinfrastructurecommission.wales/2023/09/28/leaving-twitter/)

30. [www.linkedin.com/company/26268509/admin/feed/posts/](https://www.linkedin.com/company/26268509/admin/feed/posts/)

31. [toot.wales/@nicw](https://toot.wales/@nicw)

32. [toot.wales/@nicw/109325275561464895](https://toot.wales/@nicw/109325275561464895)

33. [pix.toot.wales/nicw](https://pix.toot.wales/nicw)

## Our profile and working with others

Commissioners have presented at, or been panel members in, more than twenty conferences or similar events over the last twelve months, including the RTPI annual conference for Wales, the RICS annual conference for Wales, the Institution of Civil Engineering zero carbon Wales event<sup>34</sup>, and our first appearance internationally, which was remotely at the International Seminar on the future of the City in Bilbao<sup>35</sup>.

In keeping with the Future Generations ‘Ways of Working’, and where resources allow, we work with other publicly funded bodies and professional bodies. As highlighted above, this year we have actively worked with the Future Generations Commissioner’s Office, the Design Commission for Wales, the Consumer Council for Water and the Royal Town Planning Institute. Working together helps to maximise skill sets, reach and resource availability. We look forward to working

with other bodies and organisations in the next 12 months, in order to fulfil our remit.

Two of our Commissioners are also members of the Net Zero Wales 2035<sup>36</sup> group which is exploring how the country can speed up its transition to net zero. Our Chair is also a member of the Investment Delivery Forum Advisory Board<sup>37</sup> which brings together the major insurance and long-term savings firms with an interest in large-scale infrastructure investment.

## Response to survey on our performance

In May 2023, we issued an online survey to gauge NICW’s performance to date from our stakeholders. We obtained 15 full or partial responses. This is not sufficient to be statistically representative of people interested in our work but we consider it our first baseline measurement. We aim to increase the number of respondents in subsequent years.



*Meeting with the Centre for Alternative Technology and renewable energy stakeholders, Machynlleth*

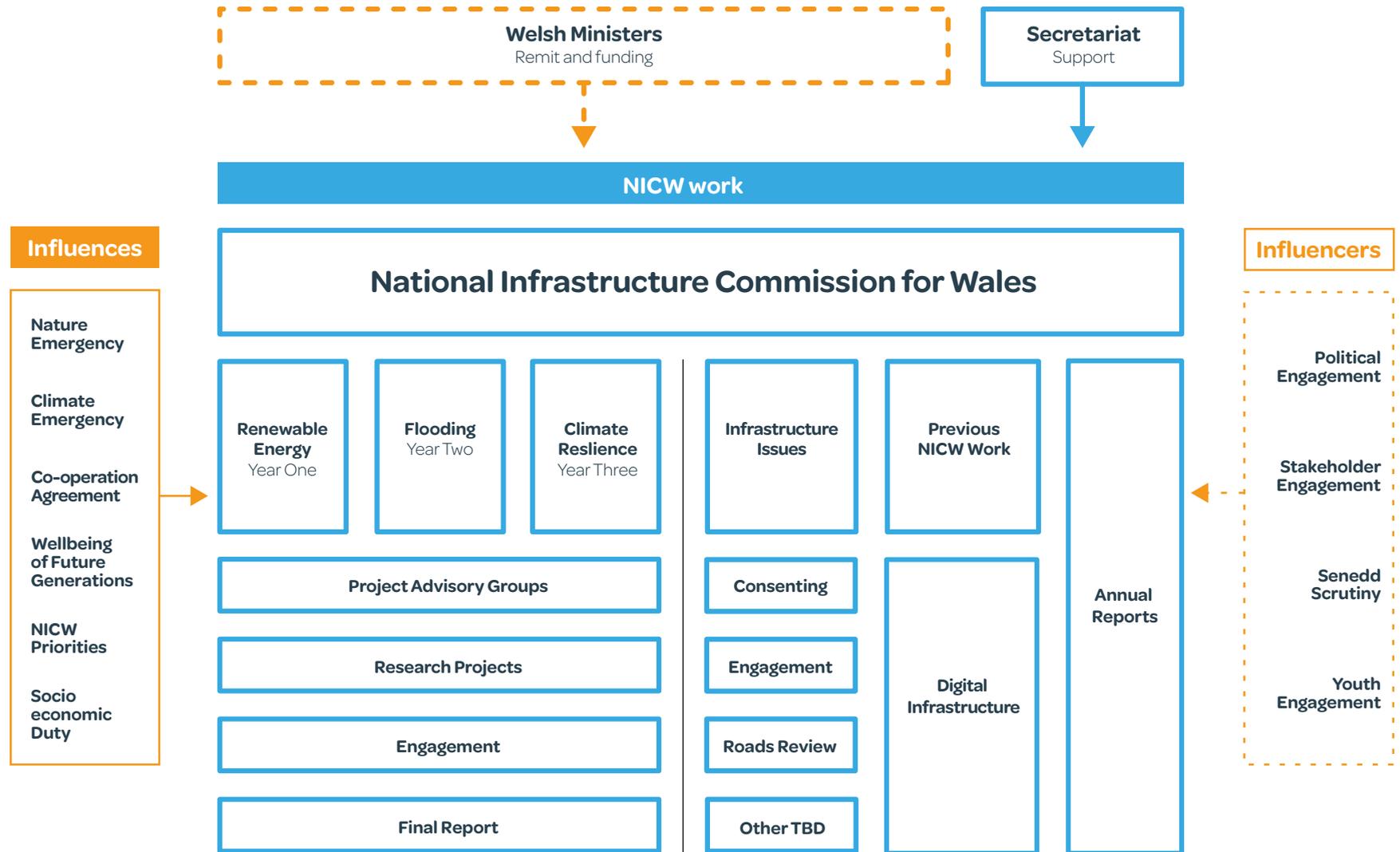
34. [www.ice.org.uk/events/past-events-and-recordings/recorded-lectures/a-route-map-to-delivering-net-zero-in-wales](http://www.ice.org.uk/events/past-events-and-recordings/recorded-lectures/a-route-map-to-delivering-net-zero-in-wales)

35. [nationalinfrastructurecommission.wales/wp-content/uploads/2023/03/DavidClubbBilbao.webm](https://nationalinfrastructurecommission.wales/wp-content/uploads/2023/03/DavidClubbBilbao.webm)

36. [netzero2035.wales/](https://netzero2035.wales/)

37. [idforum.org.uk/](https://idforum.org.uk/)

## Our Framework



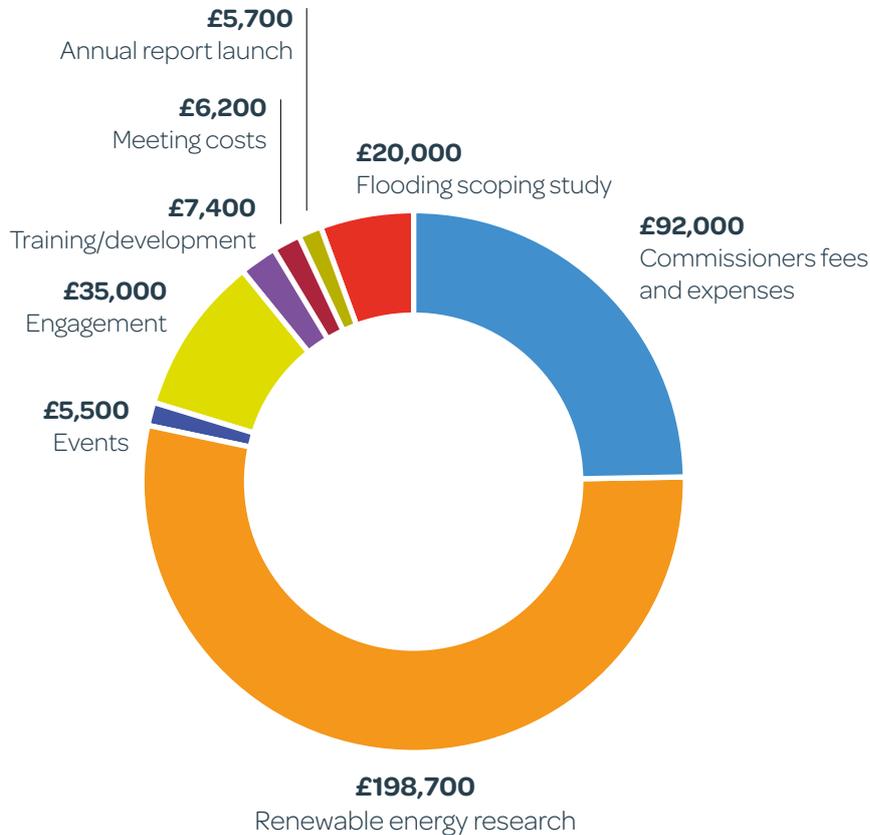
# Our 2022/23 Expenditure and 2023/24 Budget

For the first time in 2022/23 NICW was allocated a specific budget from the Welsh Government in order for it to drive forward its work and, specifically, to undertake research to further its aims and objectives. We publish our intended areas of spend for transparency.

From our £400,000 budget allocation, we spent approximately £370,500. The majority of this

was spent undertaking the renewable energy project which is outlined in more detail below. This was spent primarily on the three research contracts and the incidentals associated with producing and publishing the report. We also undertook a scoping study to inform our Year 2 work on flooding and commissioned research into engagement activity.

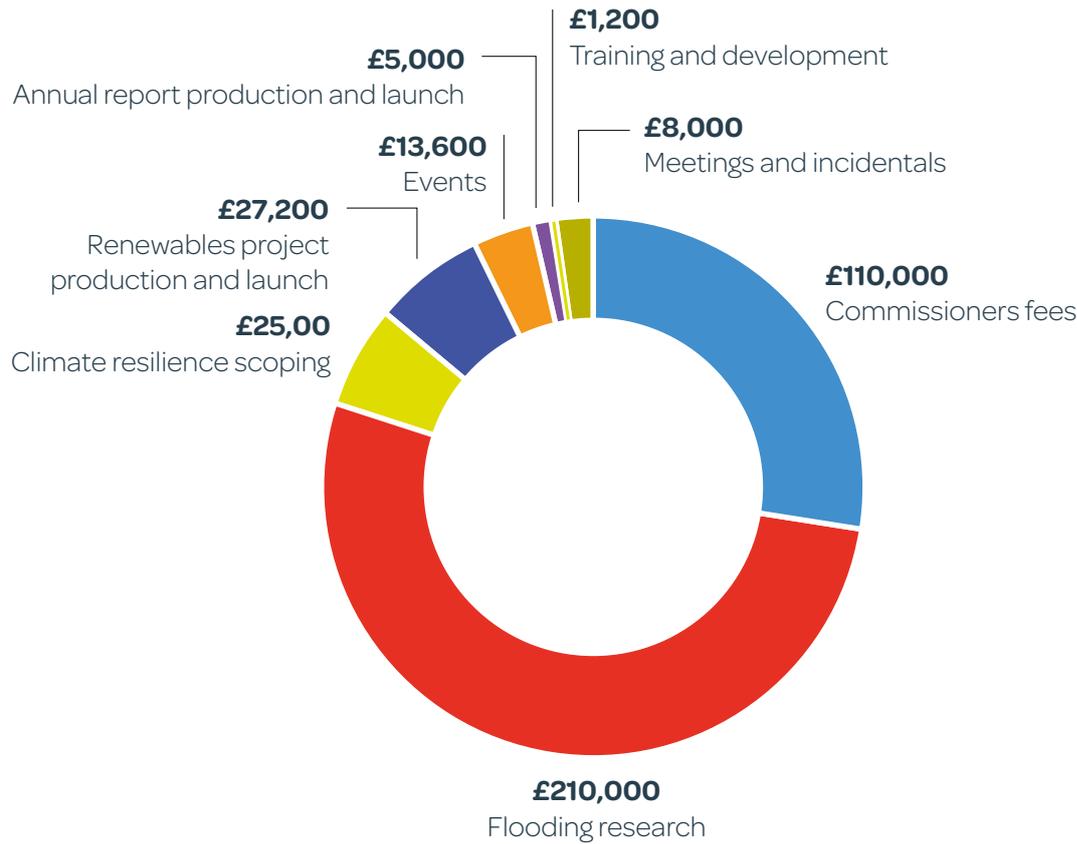
**Figure 2: NICW Expenditure 2022/23**



For 2023/24 we have been set the same budget allocation of £400,000 by the Welsh Government. We have allocated over half of our budget to the flooding research which is currently underway. We are preparing for our future work with funds allocated to help Commissioners to prepare for our third year work, to ensure that we are ready to begin our work on communicating the existential threat of climate change to communities (see below) at the earliest opportunity.

We have been given a one year budget settlement by the Welsh Government, with no guarantee that this will continue. However we are confident that the delivery of the renewable energy report together with the other activity demonstrated in this report has shown that NICW can be effective with its work, and will give us a strong platform for making a case for continued funding in the future.

**Figure 3: NICW Budget 2022/23**



# Our 2022–2025 Work Programme

## Renewable Energy: 2022/23

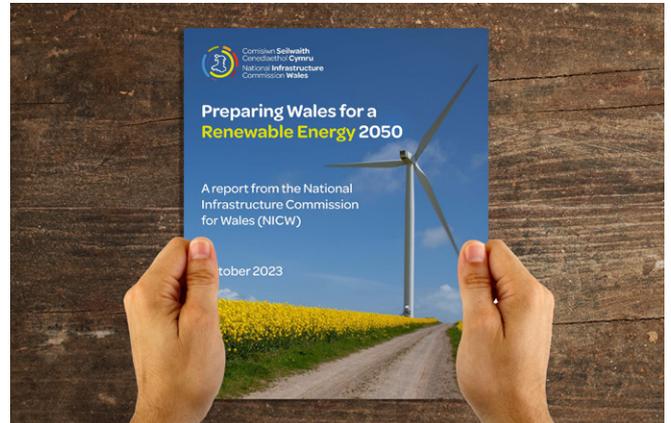
### Lead Commissioners:

Aleena Khan and Nick Tune

### Project update

In October 2023 we published our first major report of this Commission, *Preparing Wales for a Renewable Energy 2050*<sup>38</sup> which was the product of a large amount of work undertaken by us, our contractors, our Project Advisory Group and other stakeholders.

Our report finds that Wales is in the middle of an energy crisis. We know we need to reduce our dependence on fossil fuels, be less dependent on imported fuel and cut down costs for people, communities and organisations. The good progress that has been made in recent years to



ramp up clean and green energy generation will stall unless Wales redoubles its efforts. Whilst the Welsh Government does not have full responsibility for energy in Wales, it has a number of formal and informal powers we think could be better used in the years ahead.



Working with the media to promote the report, Newport

38. [nationalinfrastructurecommission.wales/preparing-wales-for-a-renewable-energy-2050/](https://nationalinfrastructurecommission.wales/preparing-wales-for-a-renewable-energy-2050/)

Our report concludes that the Welsh Government should move to rapidly accelerate renewable energy generation in Wales by thinking long term, providing a clear plan and investment ensuring new schemes are supported by or independent of the grid. It should use its influence to help solve problems with insufficient grid infrastructure and ensure the economic benefits are kept in Wales and shared more fairly. Unless action is taken now, Wales will fall behind, leaving householders with less choice and higher costs in the future.

- Ensure more of the economic benefits stay in Wales and benefit the people of Wales, including pooling of profits in a new sovereign wealth fund.

The report was widely publicised in the media and has generated a significant amount of debate about what Wales can do to move forward with renewable energy developments. We hope this is the start of many conversations with stakeholders on this issue and look forward to returning to our recommendations in the future.

## Flooding: 2023/24

### Lead Commissioners:

Eurgain Powell and Eluned Parrott

### Project overview

As reported last year, the 2021 Co-operation Agreement states – “we will also ask the National Infrastructure Commission for Wales to conduct an assessment of how the nationwide likelihood of flooding of homes, businesses and infrastructure can be minimised by 2050”. Preparatory work was undertaken in the winter and spring of 2022/23 by the Commission to focus on the areas in this sector where NICW would make the most meaningful recommendations. We commissioned Arup to help us in this respect.



*Upper Conwy Valley Flood Management*



*Renewable Energy report launch event, Techniquist, Cardiff*

In summary, NICW made 11 recommendations which want to see the Welsh Government:

- Rapidly accelerate renewables in Wales by setting a clearer vision and action plan that business and communities can understand.
- Provide upfront investment to help more projects get off the ground.
- Help communities own and share the benefits of local schemes.
- Update planning rules and building regulations.
- Use its influence with UK bodies to help solve problems with insufficient grid infrastructure.

After carrying out a scoping study earlier in 2023, the Commission wrote<sup>39</sup> to the Welsh Government outlining our plans on how we would approach this work. Our initial work consists of 4 research workstreams which cover:

- developing a vision for flood risk management;
- exploring the options for coordinated strategic and spatial responses to flood management;
- the funding and workforce resources needed; and
- quantifying and analysing the land use planning issues associated with flooding.

These are outlined in more detail below.

### Project governance

This work is being overseen by a Project Advisory Group (PAG) made up of experts in flood management and infrastructure with a Wales focus. This group's role and purpose is to support and act as critical friend to challenge the consultants undertaking the research work and add value to their work. We are grateful to the members of the PAG for giving up their time to help drive this project forward.



### Project advisory group members

#### Alan Netherwood

Cardiff University

#### Andrew Stone

Rhondda Cynon Taff County Borough Council

#### Dominic Scott

Dŵr Cymru

#### Ed Beard

National Infrastructure Commission (UK)

#### Ed Evans

Civil Engineering Contractors Association

#### George Baker

JBA Consulting

#### Gwenllian Roberts

Ofwat

#### Jean-Francis Dulong

Welsh Local Government Association

#### Jeremy Parr

Natural Resources Wales

#### Owen Conry

Conwy County Borough Council

#### Richard Betts

Met Office

#### Roger Falconer

Cardiff University

#### Roger Thomas

Mid and West Wales Fire Service

#### Clare Fernandes

Welsh Government

#### Hayley Warrens

Transport for Wales

#### Jonathan Fudge

Welsh Government

#### Alex Hinshelwood

Network Rail

#### Mark Hand

Monmouthshire County Council

39. [nationalinfrastructurecommission.wales/2023/06/09/progress-on-flooding/](https://nationalinfrastructurecommission.wales/2023/06/09/progress-on-flooding/)

### Workstream one: 2050 Vision - Arup

The purpose of this workstream is to work with stakeholders, politicians and the public on developing a Vision for Wales in 2050 where homes, businesses and infrastructure are more resilient and adaptive to impacts from flooding and sea level rise. This vision will be supported by an action plan setting out clear actions/ recommendations for organisations in order to achieve it and an educational resource to improve understanding of current and future challenges, along with what is needed to build local resilience and bring about change in the future.

The key outcomes for this workstream are:

- Provide a shared Vision for Wales 2050 and beyond, where adaptive communities are resilient to impacts from flooding and sea level rise.
- Build on the understanding of flood risk, within the context of Wales, and climate change, given the increased impacts that we are going to see.
- An action plan that enables collective action across communities and organisations, to take steps towards resilience to flood events and associated climate risks, and enhance their ability to recover more quickly.
- Assert collective responsibility to lessen the impacts of flood events, and work together towards adapting to a new norm.

### Workstream two: Strategic and Spatial Responses - JBA Consulting

The purpose of this workstream is to review existing catchment planning and other spatial/strategic practices currently occurring across Wales to learn the lessons from existing partnerships. This study aims to identify barriers and to make recommendations on how these may be overcome, exploring structures and resources for enabling strategic, integrated partnership working at a catchment/coastal zone scale.

The questions for this workstream are:

- Why isn't coastal/catchment planning/ partnership working happening more across Wales?
- Where is it happening and working?
- How can coastal/catchment working be set up to achieve long-term and multi-benefit outcomes? e.g. 100-year time horizons & resilience to climate hazards
- What needs to change to unlock effective coastal/catchment planning and partnership working?



*Presenting NICWs flood work to the Welsh Local Government Association, Llandrindod Wells*

### **Workstream three: Resources - Miller Research**

The purpose of this workstream is to work with stakeholders in scoping out the current issues regarding resourcing flood risk management in Wales. This includes workforce and finance. This would take further forward work already undertaken by the Wales Flood and Coastal Erosion Committee.

The key messages for this workstream are:

- The research approach is firstly based on establishing a baseline and current status quo of roles, statutory obligations and existing processes for risk identification and project delivery.
- We want to produce innovative solutions to standing problems, but first we need to have an accurate and detailed understanding of the roles, tasks and processes of all stakeholders. We want to encourage a holistic and participatory engagement process.
- We are aware that both resources and finance are two of the biggest barriers to ensuring effective and long-term flood risk management, so we are seeking to effectively explore the nuances around these issues.

- Within the context of these barriers, we are considering what are the challenges being faced on a regular basis, as well as what the long-term issues may be. In this sense, and for the sake of identifying truly innovative solutions, we want to be open-minded, ambitious and creative.

### **Workstream four: Land Use Planning - JBA Consulting**

The purpose of this workstream is to quantify the issue of flooding and land use planning and to assess attitudes in the sector towards the consenting of new development on land identified as flood plain. This workstream will also examine the need for monitoring of consents data and recommend a way forward on this issue.

The key questions for this workstream are:

- How much development has historically taken place in the floodplain?
- Does development in flood risk areas place an additional burden on the public purse?
- How can we better monitor the consenting of development in flood risk areas?
- What are public attitudes toward development in flood risk areas?



## Climate resilience and existential risk: 2024/25

### Lead Commissioners:

Helen Armstrong and Steve Brooks

### Project overview

We have begun our Year 3 work looking at how climate impacts threaten key infrastructure, and how we communicate with communities whose existence is therefore under threat. In 2025 we plan to produce a report that makes recommendations to Welsh Ministers on how to help public bodies better engage and involve communities and the general public in the response to these threats.

We have commissioned Cynnal Cymru to help us in scoping out the issues in this area, talking to stakeholders, finding out about existing practice from Wales, the UK and around the world and ultimately help us to focus and identify our research priorities in 2024/25.

To aid in this work, we have recently held a call for evidence<sup>40</sup> to collect information and views regarding communities facing increased risk

from more frequent flooding and coastal erosion, extreme and rising temperatures, high winds, lightning and precipitation; changes to the natural environment brought about by climate change.

The call for evidence aimed to:

- bring together information and evidence about communities at risk of long-term climate risks.
- collect ideas, opinions and views about the infrastructure issues facing communities and how they might be addressed
- collect ideas and views on how public bodies might best engage with communities
- identify interested stakeholders already working in this area.

We also want to understand how different and diverse individuals and communities might be impacted differently, and to hear from under represented individuals and groups.

We are in the process of analysing the responses we have received and look forward to developing our research phase, which will begin in the Spring of 2024.



40. [nationalinfrastructurecommission.wales/evidence/](https://nationalinfrastructurecommission.wales/evidence/)

# Commissioner reflections

Our Commissioners reflect on their first full year in office and take a forward look at things to come.

## Helen Armstrong



This year I have been busy getting to grips with the key issues facing infrastructure in the light of the climate and nature emergencies. We have visited places across Wales relating to our priority projects, learning about Wales' renewable energy capacity and our responses to flooding; these visits have given us the opportunity to meet stakeholders and shaped our thinking in these areas.

I have supported the Commissioners leading on these projects, and in addition I have been encouraging and supporting the Commission to use the Inner Development Goals<sup>41</sup>. This is an internationally recognised framework of skills and qualities that help us develop the inner capacity to deal with the complex and challenging environment we find ourselves in. I hope we can promote it to industry, the third sector and government, to improve the resilience and mental health of everyone working in the field, and prevent burnout.

Together with my colleague Steve Brooks, I have been preparing for our year 3 project which is looking at the impact of climate change on our key infrastructure, and how we communicate with and engage communities whose existence is threatened by climate impacts, including sea level rise, flooding, drought and other extreme weather events. This work also has relevance to the general public as responding to climate change will have a significant impact on future public spending and investment decisions. The project will seek examples from across Wales, nationally from the UK, and internationally to understand what works, what doesn't work, and explore innovative and creative ways to respond to the challenges before us.

41. [www.innerdevelopmentgoals.org](http://www.innerdevelopmentgoals.org)

## Jen Baxter



As Deputy Chair of the Commission, this year it was my pleasure to sponsor the launch of the renewables report. One key take away from the report is that I will continue to champion throughout my term is the development of a clear vision for energy in Wales. What can we expect to see in Wales and how will we communicate and deliver this? Without this vision it will continue to be tricky for the people of Wales to engage fully in the delivery of new infrastructure.

I have enjoyed the opportunities this year has presented me particularly in terms of expanding my knowledge of biodiversity and the planning system alongside

the eternal problem of suitable grid capacity that meets our energy ambitions. I hope to be able to continue to use these new skills beyond the Commission.

Moving forward, I would like to see more delivery of new infrastructure across Wales, and we will continue to work hard to create an environment that promotes a pipeline of new climate ready infrastructure. Our world is changing and for Wales to keep up with these changes we must move beyond policy and strategy and into accelerated manufacturing and delivery, which will in turn come with challenges of its own in the current financial landscape.

## Steve Brooks



It's been a busy first full year for the new commission, where we've sought to balance our resource and attention between our bigger multi-year projects and some of the smaller pieces of work that enable us to do quick deep dives on particular topics.

This year, along with Helen Armstrong, we've been laying the foundations for our work on communicating climate threats to at-risk communities. It's a very broad topic, so the first priority has been to scope out the key issues, identify potential stakeholders and interested parties, and better understand how economic and social factors need to be taken into account.

Alongside this, my work over the last 12 months has focused on planning. Working with the Royal Town Planning Institute (RTPI), NICW hosted two events

exploring the extent to which a divergent Welsh policy agenda on town, country and spatial planning had led to different outcomes compared with England. NICW was also asked by the Welsh Government to facilitate an engagement exercise on the Infrastructure (Wales) Bill to inform a Senedd committee's scrutiny of the draft legislation. David Clubb and I were able to appear in front of the committee to reflect back the findings of our engagement exercise.

Work on the Year 3 project looking at communicating climate threats to at-risk communities will now ramp up, so whilst the topic is difficult, I'm looking forward to working with organisations across Wales to identify how best we can engage communities in this crucial challenge facing Wales.

## David Clubb



The last twelve months have seen NICW demonstrate competence in delivering projects and provide a considered opinion on a range of topical issues, including urban biodiversity and roads in Wales. Interest in our activity is increasing. We look forward to continuing our engagement with a wide range of stakeholders in order to better understand the issues facing the communities of Wales.

We have worked internally to try to develop a framework that allows us to consider how the perspectives of people being born in 2100 should be taken into account. Although we are

a long way from a finished product, we are nonetheless pleased to be an organisation that explicitly and consistently calls for such long-term thinking. We will continue to encourage others to incorporate empathy and connection to the future citizens of Wales into their own considerations and decision-making.

I am keen to demonstrate the value that NICW has delivered from our funding, and to continue to help prepare Wales for the challenges and opportunities that our infrastructure will face and provide in the future.

## Aleena Khan



Over the past year, I've taken a unique journey across Wales through the lens of infrastructure. My adventure at NICW began when I became co-lead, alongside Nick Tune, of the renewable energy project; the goal of which was to present radical recommendations to accelerate the Welsh Government's goals of achieving net zero carbon emissions in Wales by 2050 through the deployment of renewable energy.

A key success of the project to me, was the application of NICW's values and aims in addition to the Well-being of Future Generations Act's goals and ways of working, throughout. This ensured that the project output not only touched upon policy,

environment and economics, but also encompassed wider features such as community benefits, socio-economic duties and the future-proofing of decisions on infrastructure deployment.

As the youngest commissioner, I've felt the weight of my responsibility to represent not only the views of my peers today, but also those of the future. NICW has facilitated a healthy working culture guided by internal reflection opportunities and the Inner Development Goals which has given Commissioners the opportunity to work confidently, and provide the space for continuous improvement.

With this I look forward to my next challenge at the Commission!

## Eluned Parrott



As the Commission has settled into its new ways of working, there's a real sense of urgency and desire for pace within the team. The past year has seen record-breaking sea and air temperature rises, with a stormy winter looking very likely. The work that we are currently undertaking on mitigating flood risk is important on a strategic level, but also on a deeply human one.

Flood events bring misery to communities and destroy homes, businesses and lives. That's always in my mind as we take this project forward.

## Eurgain Powell



I've found my first full year as Commissioner interesting and challenging! We've had an opportunity to engage with a range of organisations and stakeholders, and I've enjoyed visiting the three corners of Wales (by train) to discuss the infrastructure challenges being faced. It's also been a great opportunity to raise the profile of the Commission but also to remind stakeholders that we have a fairly tight remit and limited capacity to manage their expectations of us. I have enjoyed getting to know the other Commissioners and developing our knowledge and skills on a range of topics including biodiversity and building with nature, Futures and long-term thinking and using the Inner Development Goals.

As one of the lead Commissioners on the Flooding project, it's been a busy year! We have established a Project Advisory group to support and advise us with this work and undertaken a Scoping phase to better understand the current challenges and how the Commission could add value. When considering the long-term impacts of flooding and sea level rise on people, communities and infrastructure in Wales, a key theme has been the need to develop resilience and how this could be achieved. We are currently working with three organisations to develop a positive vision, consider current barriers and also practical solutions and I look forward to bringing it all together into our report next year.

## Nick Tune



As a co-leader, alongside Aleena Khan, of the Renewable Energy project over the past 12 months, I've been inspired by the unwavering dedication of individuals spanning various communities and business leaders in their shared vision for Wales to transition into a 100% renewable energy-driven nation. What's equally impressive is the determination exhibited by many to ensure that the establishment of a carbon-neutral energy infrastructure truly benefits the people of Wales, whether through more affordable energy bills, expanded business opportunities, or a reduced impact on climate change. While some of our recommendations may pose

challenges for the Welsh Government, it is essential to acknowledge that we are in the midst of a climate crisis, and conventional approaches will no longer suffice.

On a personal note, I've had the privilege of collaborating with my fellow commissioners, who have been not only welcoming but also profoundly committed to enhancing infrastructure for the people of Wales, with a keen focus on the well-being of future generations.

I am firmly convinced that our collective efforts are steering the dialogue on what sustainable infrastructure should entail in Wales and how it should be effectively implemented.

# Engagement/Resources



You can email us at [NationalInfrastructureCommissionforWales@gov.wales](mailto:NationalInfrastructureCommissionforWales@gov.wales)



You can telephone the Secretariat on **0300 025 5200/5040**.



You can check out our [LinkedIn](#) Page.

We maintain a register of our engagements online:

<https://nationalinfrastructurecommission.wales/about/>

Our new Remit Letter can be viewed here:

<https://gov.wales/national-infrastructure-commission-wales-remit-letter>

Our updated Terms of Reference can be viewed here:

<https://gov.wales/national-infrastructure-commission-wales/terms-reference>

Our register of interests can be viewed here:

<https://gov.wales/national-infrastructure-commission-wales-commissioners-register-interests>

Our meeting notes can be found here at:

[https://gov.wales/publications?keywords=&All\\_=All&field\\_external\\_organisations%5B5328%5D=5328&publication\\_type%5B8%5D=8&published\\_after=&published\\_before=](https://gov.wales/publications?keywords=&All_=All&field_external_organisations%5B5328%5D=5328&publication_type%5B8%5D=8&published_after=&published_before=)