

# Open Data Strategy

# Executive Summary



# Foreword

# **Pete Perry**



As a company, our purpose is to provide high quality and better value drinking water and environmental services for the benefit of our customers, the communities we serve for now and for future generations.

We put our customers at the heart of everything we do, each and every one of us living by our values to deliver our service in an open, honest and transparent manner. In support of these values and aiming to earn the trust of our customers every day, we have launched our first Open Data Strategy, which outlines our ambitions to make our data open for our customers and stakeholders. We know that making data open has several benefits; it drives innovation, improves transparency, and can also provide significant financial gains, improving collaboration and efficiencies. We are already making significant strides on our Open Data journey. Alongside publishing key performance data, we have participated in national open data projects such as the National Underground Asset Register, a common underground map of the country, and have strong, well established data sharing protocols demonstrated during incidents, and with partners in the energy and water industry. We are a key partner in the national Stream initiative which went live in December 2023; providing a common platform for all water companies to publish data to help drive better services. In January 2024 we took a big step in our Open Data journey with the release of our Real Time Storm Overflow Map.

We are committed to progressing with the open data strategy outlined in this document, the industry and the business is facing unprecedented challenges; providing open access to data will bring added benefits to our customers, our colleagues and business development.

# **Tom Crick**



As a Glas Cymru Board member and Chair of Dŵr Cymru Technology Committee, I take a very keen interest in the progress of Dŵr Cymru's data capability; better data drives better performance and accountability.

I am pleased to see how this has developed, with the launch of our first Data Strategy and the delivery of some innovative projects and initiatives. The launch of our Dŵr Data Academy is one project worthy of note; this helps develop the company's capability by providing colleagues to with their skills in using data, and how this can support them in their everyday roles. The Open Data Strategy is the next step in the iteration of this data journey, and I am really pleased to see the Water sector aligning with the Energy sector in making Open Data a key priority. Over the coming years the emergence of generative AI will change how we make decisions with the data that we hold, and it is critical that as an organisation and sector we approach this in an open and transparent manner.

We know that data is an invaluable asset and this strategy will aid collaboration, innovation and improved services to our customers in Wales.

# Purpose of this document

This document intends to serve as a summarised version of Dŵr Cymru Welsh Water's Open Data Strategy. In this document, you will find key information about why we have created an Open Data Strategy and how we will approach the implementation of our open data initiative.



# Why have we created an Open Data Strategy?

At Dŵr Cymru Welsh Water, we recently published our first Open Data Strategy. The document is primarily motivated by our commitment to publishing open data, to provide our customers and the public with insights into our internal and public facing operations, and the impacts that these activities might have on people across the areas we serve. We are also aligning our approach to recommendations made by Ofwat, the regulator for water companies, in their recent <u>H2Open report</u>.

Open data is a key concept of our Data and Analytics Strategy, which in itself outlines key activities that support the organisation being able to fully leverage the capabilities of its data and enables the organisation to move towards data-led decision making. Due to both complexity, and overall importance, there is a justified need to create a strategy that champions an open approach to data, but does so in a way that aligns with broader strategic thinking around data at Dŵr Cymru Welsh Water.

We believe that this strategy provides us, our customers, and the public, with a clear plan on how we intend to make progress with open data over the coming months.

# We have determined that a successful and continuous open data initiative will require:

- Implementing enhanced data management, technical standards, and technology to effectively facilitate the provisioning of open datasets to end users.
- Educating the business around open data. Enabling the organisation to readily identify opportunities to release data, based upon assessed value to end-users, with appropriate consideration and mitigation of any associated risks.
- Active channels to interact with our external stakeholders and the general public, and to understand from them what their priorities are around open data. This includes an ability to share with them insight around end-user utilisation, and to capture feedback on usefulness, value, and opportunities for improvement.
- Development of appropriate key performance indicators that drive the continuous success and value of the open data initiative, and other strategic oversight considerations such as budget setting and ensuring benefit realisation.
- In this summary document, you will find key information about how we plan to deliver on these requirements.

# **Guiding principles**

Working with the Open Data Institute (ODI), we have explored our open data maturity as an organisation, engaging colleagues, and establishing strategic direction. Collaborating with other water companies through the <u>Stream collaboration</u>, we have also established collective principles supporting open data delivery for the sector.

# Findable

Accessible

Ethical

Data is easy to find for both humans and computers, with a globally unique and persistent identifier, rich metadata, and registered or indexed in a searchable resource, such as a company open data portal, and/or an external platform.

Data is retrievable by identifier using a standardised communications protocol that is open, free, and universally implementable and metadata is accessible, even when the data is no longer available.

Data will be assessed to understand the positive and negative impact of collecting, using and sharing data, the relevant mitigations, with findings transparently and openly published. <u>Interoperable</u>

Data uses a formal, accessible, shared, and broadly applicable language for knowledge representation that is standardised across the water sector and as linkable as possible to data infrastructure in other sectors related to utilities, the built environment, and the natural world.

Reusable

Open

Data is defined and richly described with a plurality of accurate and relevant attributes, is released with a clear and accessible data usage licence, associated with detailed provenance and meets domain-relevant community standards.

Data will be published according to the ODI open data definition - to be accessed, used and shared by anyone.

# Dŵr Cymru Welsh Water's open data delivery plan

At Dŵr Cymru Welsh Water, we are committed to delivering open data for our community, in line with the expectations set out by Ofwat. Our delivery plan will centre on the delivery of activities and initiatives belonging to four key themes:



## Strategic Oversight

Activities to support the ongoing success of the open data strategy, including sponsorship, budget setting and forecasting, and defining key performance indicators (KPIs). KPIs should ensure outputs bear accessibility, diversity, and inclusivity in mind.



#### Data Management & Infrastructure

Data management, governance and underpinning architectural design and platform implementation

# Op Org skill

#### **Open Data Culture**

Organisational activities that raise open data awareness, skills and literacy, and enable discussion and consideration of future open dataset candidates

## **Collaboration & Prioritisation**

Establishing and maintaining relationships with key external stakeholders and end-users, for feedback, knowledge sharing, and prioritisation based on user needs





# Phase one

# Setting the foundation for the successful implementation of the initiative

Strategic Oversight

- Key roles and responsible personnel identified
- Open Data Steering Committee established to support oversight and decision making
- Open Data Working Group established to support open data activities

## Data Management & Infrastructure

- Open data enablers established, including standards, metadata, quality and licences
- Requirements for sensitive data and risk management established
- Alignment with emerging water industry best practices around data management

#### Open Data Culture

- Dŵr Data Academy open data module made available to the organisation and additional training assets relating to data literacy identified for future inclusion
- Internal communications channel for open data strategy updates established
- Establish use cases for initial dataset publication and a shortlist for future datasets to be considered

# Collaboration & Prioritisation

- Open Data Strategy published on the company website and communicated to DCWW community
- Reviewed our own use of open data and designed a process for feedback
- Continued support of Stream in delivering the water industry's open data roadmap

# Phase two

First steps – publishing open data, testing platform design and implementing best practices

## Strategic Oversight

- Open Data Steering Committee involved in key decisions regarding design and next phase of implementation of open data initiative
- Open Data Working Group has delivered phase two activities
- KPIs for open data initiative established, including how the initiative will maintain levels of accessibility, diversity and inclusivity, and how to manage and track the benefits of the initiative

### Data Management & Infrastructure

- MVP open data service made available
- Requirements for open data designed and adopted
- Requirements for sensitive data and risk management designed and adopted

#### Open Data Culture

- Additional training assets added to Dŵr Data Academy and disseminated to the wider team to support data literacy
- Initial datasets published under an open licence on the MVP open data service
- Dataset prioritisation process implemented and the next set of open datasets selected

# Collaboration & Prioritisation

- End-user support needs established for future dataset publication and actions agreed to develop supporting documentation
- Mechanisms to support promoting new datasets externally to spur innovation (e.g. hackathons, innovation challenges) discussed and agreed
- Implemented process for feedback to other data publishers which we use data from.

# **Phase three**

Establish open data at Dŵr Cymru Welsh Water as a business-as-usual (BAU) activity.

### Strategic Oversight

- Open Data Steering Committee and Open Data Working Group mobilised for BAU continuous delivery, with business area representatives nominated as 'Open Data Champions' to support
- Dashboard created that provides a regular update on the initiative's KPIs
- Roadmap for future open data initiatives agreed

# Data Management & Infrastructure

- Full version of open data service made live for the public
- All technical requirements implemented and guidance available to the organisation
- Data quality monitoring in place for pipelines supporting open datasets, with processes in place to redress issues

#### Open Data Culture

- Additional training assets added to Dŵr Data Academy and disseminated to the wider team
- The next set of open datasets published and further open datasets prioritised
- Process implemented for capturing and quantifying benefits of open datasets

# Collaboration & Prioritisation

- Innovation challenge organised and facilitated to showcase innovative use of open data and the benefits of collaboration towards a business/sector challenge
- Showcased our own use of open data through written examples or case studies
- Proactively seeking partnerships opportunities and other collaborations

