
Centre City Tower, 7 Hill Street, Birmingham B5 4UA
21 Bloomsbury Street, London WC1B 3HF

Welsh Government Water Resources Management Plan Consultation
Water, Waste Resource Efficiency and Flood Division
Water Policy Branch
Cathays Park
Cardiff
CF10 3NQ

8 June 2018

Dear Sir or Madam,

Dŵr Cymru Welsh Water – draft water resources management plan 2019

Dŵr Cymru Welsh Water (Dŵr Cymru) published its draft water resources management plan 2019 on 16 March 2018 for consultation. This letter provides a summary of our assessment of the draft plan. It is our statutory consultation response, produced in accordance with our statutory duties and the Welsh Government's strategic policies and objectives for Ofwat. These views are without prejudice to any subsequent decisions that we may make at the next price review (PR19) in connection with the business plan that the company is scheduled to provide to us in September. Our assessment has considered:

- how adequately the draft plan follows the requirements of the water resources planning guideline and the Welsh Government's guiding principles for water resources planning; and
- how the draft plan helps achieve our vision of ensuring trust and confidence in the sector through the delivery of our key themes for PR19 of great customer service, affordable bills, resilience in the round and innovation.

Long term water resources planning is a key part of company business activities. We expect companies to integrate the development of their water resources management plans into their business plans which they submit to Ofwat. We also expect them to adopt an integrated and sustainable approach to improve water supply resilience through both increased supply and reduced demand. We will continue to work closely with the Welsh Government and other regulators in both Wales and England to ensure that a long term secure and sustainable supply of water is achieved.

Dŵr Cymru supplies water to a population of three million customers. Its operational area comprises the majority of Wales together with parts of Gloucestershire, and Herefordshire. The company's water resources are planned on the basis of 24 water resource zones and it predicts that two of these, Pembrokeshire and Tywyn Aberdyfi will enter a deficit in the early 2020s. This means there would be insufficient water to maintain supply to customers in some severe drought conditions. Effective action is therefore required to deliver for customers and the environment in these two zones.

We welcome Dŵr Cymru's stated ambition to reduce leakage by 15% by 2025 and also its decision to produce a longer 30 year plan. The company has brought together a variety of stakeholders to challenge its planning through the Independent Environment Advisory Panel which is an example of good practice. While the majority of Dŵr Cymru's plan is in line with our expectations and good practice, there are areas of the plan where we are not convinced, on the basis of the evidence provided, that the plan delivers in the best interests of customers. In particular:

- The narrative in the draft plan states an ambition to reduce leakage by 15% by 2025 however, it is not clear how this will be achieved. While the company has investigated a 15% leakage reduction scenario, it is not reported in the planning tables and it is unclear what mix of leakage options is required to meet this reduction target. There is also a lack of clarity on the longer term ambition for leakage reductions after 2025. We expect Dŵr Cymru to provide full clarity on its approach to leakage reductions in the final plan.
- Dŵr Cymru has the potential to provide significant new water exports in the future and we welcome its proactive engagement with other water companies to identify trading opportunities. We recognise transfers require coordination between the companies and we expect all parties involved to continue to actively engage on progressing the potential trades prior to the final plans being published. If the uncertainties around the trades are not resolved by the final plan there may still be merit in continuing to explore trading options, given the importance of ensuring the preferred programmes represent best value for customers.

Further details on these points are outlined in the annex to this letter alongside more detailed comments on different areas of the draft plan.

I look forward to seeing these points addressed in Dŵr Cymru's statement of response and final plan.

Yours faithfully

A handwritten signature in black ink, appearing to read 'DB', is written over a light grey rectangular background.

David Black

Senior Director, PR19

Annex

In this annex we outline further details on the points raised in our main letter alongside more detailed comments on different areas of the draft plan. Our points reflect our assessment approach and cover:

- 1. Plan building blocks:** The overall approach to the development of the draft plan in line with the technical guidance and broader resilience issues.
- 2. Customer participation:** The type and quality of interaction with customers and the impact this has had on the draft plan formulation and proposals.
- 3. Demand forecast:** How the company has considered the impacts of population growth, leakage and water efficiency in its demand forecast.
- 4. Supply forecast:** How the company has considered climate change, abstraction licences changes and transfers in its supply forecast.
- 5. Forecast uncertainty:** The robustness of the draft plan in accommodating uncertainties in the demand and supply forecasts.
- 6. Supply-demand balance:** The robustness of the overall need for water, if any, and the scenario testing applied to this assessment.
- 7. Options:** The approach taken to identifying and screening options for both supply and demand, including identification of trades and third party options.
- 8. Decision making:** The decision making tools, preferred programme development process and accompanying assurance processes.
- 9. National and regional considerations:** The interaction and consistency with national studies and regional groups (where relevant).

1. Plan building blocks

Dŵr Cymru has used methods and data appropriate to the scale and complexity of the problem it needs to address, and applied more complex methods for water resource zones facing greater challenges. It has also adopted an extended planning horizon of 30 years. However, we have concerns around the transparency of the levels of service and the approach to non-drought resilience. Further specific comments:

- Dŵr Cymru has referenced Welsh legislation in its draft plan, for example, through the consideration of an ecosystems approach and the Well-being of Future Generations Act in its decision making and options screening.
- We welcome that Dŵr Cymru investigated the resilience of its zones to a 1-in-200 year drought event with respect to level 4 restrictions such as standpipes.

The company should clarify whether this is the minimum target level of service for this level of restriction in all of its zones. Further considerations:

- We note the preferred plan will enhance resilience in the two zones facing a deficit in the planning period, Pembrokeshire and Tywyn Aberdyfi, to achieve resilience to a 1-in-200 year drought event.
- The Vowchurch zone is the only remaining zone that appears not to demonstrate resilience to a 1-in-200 year drought event, though this is inconsistently presented in the plan. The plan narrative identifies this issue but is contradicted by appendix 19. In the final plan the current resilience status of the zone should be further justified with associated future plans clearly identified.
- The engagement with the Independent Environment Advisory Panel (IEAP) is an example of good practice. The group includes representation from regulators and third party organisations such as the Canal & River Trust, National Park Wales and the National Farmers Union Cymru. However, greater clarity is required in the final plan on how Dŵr Cymru has addressed the group's feedback.
- The plan includes some consideration of non-drought resilience in terms of dam safety and catchment water quality which we welcome. Further comments:
 - Greater clarity is required on the interaction of the plan with the company's 'Welsh Water resilience framework' and how resilience to other non-drought hazards such as freeze-thaw is considered.
 - Dŵr Cymru reference significant resilience investment to continue catchment management activities and replace existing treatment works. This investment is not included in the draft plan as it does not directly impact the supply-demand balance and we expect further justification for these schemes to be provided in the PR19 business plan.

2. Customer participation

Dŵr Cymru's overall approach to customer engagement generally appears appropriate and includes the use of a bilingual Welsh and English 'chatbot' for engagement, alongside more standard approaches such as surveys and workshops. However, there are areas of the draft plan where greater clarity is needed to provide confidence that customers are able to participate effectively in the planning process. Further specific comments:

- The draft plan includes an executive summary which is written in easily understandable language and Welsh and English language versions of a non-

technical summary document have been produced. However, this summary is of considerable length (55 pages) and the company should consider presenting a concise summary of the proposed plan at a company level.

- The company has provided evidence of engagement with customers on levels of service and their willingness to pay for improvements. Dŵr Cymru state customers appear to be supportive of a 1-in-200 year return period for level 4 restrictions, although this is influenced by the bill impact of any enhancements. It is also unclear if relative drought resilience levels have been compared with other companies to enable informed engagement with customers. This needs to be clarified for the final plan.
- Research into option preferences suggests Dŵr Cymru's customers have a preference for further leakage control over investment in new supplies and customers want the company to further promote water efficiency. However, as we discuss in section 7, it is not clear how this has been reflected in the preferred options.
- It is also unclear if the bill impact of the preferred plan has been discussed with customers and this should be confirmed in the final plan.
- The draft plan includes limited reference to the company's Customer Challenge Group and it is unclear how it has influenced plan development. We expect to see detail of how the group has shaped the plan, including its role in assuring customer engagement activities, within the final plan.

3. Demand forecast

The draft plan appears to have followed the relevant guidance and assessed demand through consideration of appropriate components. However, greater clarity is required on the potential changes to unmeasured per capita consumption (PCC), and engagement with large users. Further specific comments:

- Dŵr Cymru has adopted a trend-based approach to population forecasting using data from the Welsh Government, the Office for National Statistics and its own billing records.
- Dŵr Cymru has indicated it is currently undertaking data improvement activities which may lead to a significant reduction in unmeasured PCC forecasts. It intends to phase this reduction in over 2020-25. For the final plan the company should further clarify the scope of the potential change and how it intends to manage this uncertainty.
- The company has used econometric regression analysis to help forecast non-household demand. However, the company should clarify if it has engaged directly with large customers to enhance and validate this forecast.

4. Supply forecast

The overall approach to the supply forecast appears satisfactory and to be calculated in line with guidance. Supply forecasts are clearly identified for each of the 24 zones alongside the key supply constraints which increases the transparency of the draft plan.

5. Forecast uncertainty

Dŵr Cymru appear to have adopted an appropriate approach to determining target headroom however, greater clarity is required on the approach to climate change risks. In particular:

- Target headroom is 7% of demand in 2020, decreasing to 6% of demand by 2045 moving from slightly higher to lower than the industry average across the period. This is not a significant driver of the plan.
- Climate change uncertainty has been investigated further for zones identified as being vulnerable to climate change. However, the company should consider if further investigation of climate change scenarios across all zones is required to fully account for uncertainty.

6. Supply-demand balance

The supply-demand balance profile presented is in line with the assumptions of individual supply and demand components and appears to be consistent with guidance across the scenarios modelled. We note that a review of the supply-demand balance components is complicated by the number of zones in the Dŵr Cymru area and the company should consider whether production of an aggregated company level planning table would aid understanding and transparency of the plan.

7. Options

Dŵr Cymru considered a range of options for the two zones facing deficit and we welcome the ambition to reduce leakage by 15% by 2025 in the plan narrative and the consideration of new water exports. However, we have concerns around the clarity of the preferred options for achieving the leakage reduction, the approach to water efficiency, and the quality of data in the planning tables. Further specific comments:

- The company has used appropriate screening criteria that appear to have been applied consistently. However, only a single option has been identified in the plan narrative to increase resilience of the Vowchurch zone. Further clarity

relating to whether other options were considered, and why they were screened out, should be provided. We note no options are included in the planning table for the Vowchurch zone.

- Dŵr Cymru used an Official Journal or OJEU to promote the need and generate third party interest. Third party options were identified but none were selected in the preferred plan and the company should consider how it could further engage with third parties to promote supply-side and demand-side options where appropriate.
- Dŵr Cymru has the potential to provide significant new water exports in the future and we welcome its proactive engagement with other water companies to identify trading opportunities. Further considerations:
 - The plan references discussions of potential export to Thames Water and Severn Trent Water although limited information is provided. We recognise transfers require coordination between the companies and we expect all parties involved to continue to actively engage on progressing the potential trade prior to the final plans being published.
 - If the uncertainties around the trade are not resolved by the final plan there may still be merit in continuing to explore trading options, given the importance of ensuring the preferred programmes represents best value for customers.
 - It is important key stakeholders such as Natural Resources Wales and the Welsh Government continue to be consulted in the development of any trading options. The options need to demonstrate alignment with Welsh Government principles and ensure they are not detrimental to customers or to the ecosystem in the area water is taken from.
- The narrative in the draft plan states an ambition to reduce leakage by 15% by 2025 which aligns with customer preferences. However, while the company has investigated a 15% leakage reduction scenario, the plan does not clearly set out how this will be achieved. There is also no clarity on longer term ambition for leakage reductions after 2025. Further considerations:
 - The 15% target by 2025 is not consistent with data in the planning tables, which indicate a reduction of 3% by 2025.
 - The final plan should clearly identify the preferred options, related costs and justification for selection both in the plan narrative and the planning tables.
 - The final plan should also clarify the long term ambition for leakage reduction for the remainder of the planning period, from 2025 to 2050.
- The forecast level of metering penetration rises from 43% in 2020 to 48% in 2025 and 68% by 2045, as a result of maintaining current optant strategies.

We welcome the company is piloting smart meter installation and greater clarity should be provided on how this will influence future plans for wider adoption of smart meters.

- In the planning tables Dŵr Cymru has presented identical baseline and preferred plan trends for PCC. This suggests the demand management approach is a continuation of existing activities however, the plan narrative identifies an increase is planned for 2020-25. Further considerations:
 - The company has a high forecast baseline average PCC of 144 l/h/d in 2020, compared with the industry average of 136 l/h/d. The company's PCC remains above industry average throughout the plan and will be 136 l/h/d by 2045.
 - It is unclear how Dŵr Cymru's approach to water efficiency is consistent with customer preferences and the company should consider further what steps it could take to effectively promote demand reduction.
- Dŵr Cymru has selected supply-side options in the preferred plan to address the forecast deficits. The Pembrokeshire zone preferred solution is a pumping station upgrade and in the Tywyn Aberdyfi zone there is a new raw water abstraction and transfer to an existing treatment works.
- The planning tables are not fully completed and need to be updated for the final plan. For example:
 - The preferred options proposed for achieving the 15% leakage reduction should be added to the planning tables alongside all other feasible options.
 - Any options relating to demand management activities beyond those included in the baseline should be added to the planning tables.
 - The company should review its approach to financing costs for the final plan as these are reported as negative in the initial years of proposed schemes. This approach is not in line with guidance and not justified in the plan.

8. Decision making

Dŵr Cymru has used a conventional economics of balancing supply and demand (EBS) approach with scenario testing to determine the preferred plan. This is in line with its problem characterisation. However, we have concerns around the transparency of the decision making approach and the scope of assurance for the draft plan. In particular:

- The company appear to have incorporated an ecosystems approach into its options appraisal process, in order to ensure that preferred options consider environmental effects. However, greater clarity is required for the drivers behind the preferred options and how these options were selected. Further considerations:
 - It is unclear whether a least cost or best value plan has been selected. For example in the Tywyn Aberdyfi zone the preferred option is identified as least cost, but has a higher cost than the non-preferred storage option. It is unclear if environmental effects drive this decision.
 - The preferred plan does not resolve the deficit in the Tywyn Aberdyfi zone until 2022-23. The company should consider whether it can deliver the option earlier and if this is not possible identify how it intends to manage the risk to customers during this period.
 - As noted in section 1 the company investigated achieving resilience to a 1-in-200 year drought event across its area. However, in the final plan greater clarity is required on the impact of this investigation on the scaling and timing of the preferred plan options.
- There is evidence of independent assurance of the draft plan using a risk based approach but it is unclear, given the issues noted in section 7, if the planning tables were assured. A brief reference is also made to Board approval of the draft plan and in the final plan greater clarity should be provided on the Board's involvement.

9. National and regional considerations

Dŵr Cymru has the potential to provide significant new water exports in the future. As noted in section 7 it has actively engaged with other water companies to identify opportunities for this and we expect this engagement to continue. To add further clarity to these considerations, Dŵr Cymru should explain in the final plan how the Water UK national project has informed its plan.