



Report of the Cabinet Member for Corporate Service and Performance

Climate Change and Nature Scrutiny Performance Panel – 3rd October 2023

Overview on Water Quality and Water Management

Purpose	To brief the Climate Change and Nature Scrutiny Panel on work carried out by Housing and Public Health.
Content	An overview on water quality and water management.
Councillors are being asked to	To consider the information and give views
Lead Councillor(s)	Councillor David Hopkins
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1. Introduction

- 1.1 Natural Resources Wales (NRW) collects detailed scientific data on the cleanliness of our bathing waters (mostly beaches) every year between May and September. Detailed reports are available for bathing water quality data on the NRW website <https://naturalresources.wales/guidance-and-advice/environmental-topics/water-management-and-quality/water-quality/bathing-water-quality/?lang=en>
- 1.2 Our coastal waters are hugely improved by large and sophisticated treatment schemes. We monitor water quality to protect public health using standards set in a European Directive transposed to the Bathing Water Regulations 2013.

- 1.3 The standards protect public health but recognise that seawater is a natural variable environment. Bad weather will result in higher numbers of bacteria.
- 1.4 Gower beaches easily pass the standards but Swansea Bay is a little more complex.
- 1.5 In order to protect public health and avoid a detrimental effect on tourism, the Pollution Control team participated in a multi-agency, EU-funded project called 'Smart Coasts' which was a Wales/Ireland cross border programme.
- 1.6 In 2011, intensive sampling of seawater from the Designated Sample Point (opposite the Guildhall Slip) on Swansea Bay and various inputs into the Bay and monitoring of other environmental parameters, such as solar radiation, was carried out. This data enabled the development of a prediction model for Swansea Bay in real time. The model predicts the mean bacterial concentration, which determines the water quality in health terms. This information can be passed to the public so an informed decision can be made about whether to swim.
- 1.7 This approach protects public health and improves compliance with the standards.
- 1.8 During the summer water quality information for Swansea Bay is displayed on signs by the Slip. Results are updated hourly between 8am and 8pm. The water quality can change throughout the day depending on sunlight, wind direction, river flows and the tide.
- 1.9 The results are also broadcast via our Twitter account. To get up to date information simply follow @SwanseaBayWater. Unfortunately, due to the change of ownership of Twitter there has been an issue with the automatic updates to Twitter and so a temporary website was produced for the season result.swanseabayprediction.co.uk
- 1.10 The Robotic Process Automation System was in operation again this season. The 'Robot' is trained to use the same rules a human would follow, if they were doing the process manually, which means the system can run without the need for manual intervention. This method of running a Bathing Water Prediction model is the first in Wales and could be rolled out to other areas in the future.
- 1.11 The Pollution Control team carries out weekly sampling at Rhossili and Broughton Bay, two non-designated bathing waters (surface waters that have not been identified by Welsh Government, for example, as not having large number of bathers) throughout the bathing season. This data is shared with NRW.

2. Water Pollution - Incidents

- 2.1 The Pollution Control & Private Sector Housing Division provides a 24-hour response for water related incidents.
- 2.2 Incidents can include:
- Oil spills at sea
 - Fuel oil spills on land
 - Sewage issues relating to cesspits/septic tanks
 - Major drainage misconnection issues
 - Construction sites.
- 2.3 Officers have developed a very good working relationship with colleagues in the local NRW Team over many years and collaborative approaches are taken during investigations where regulatory crossover may occur.

3. Water Quality

- 3.1 River Tawe – The Team operates and maintains the aeration system, within the river due to the barrage, during the summer months to assist mixing within the water column for dissolved oxygen and salinity concentrations. Sampling is also undertaken at other locations on the Tawe for events and at the request of other council departments. This system was upgraded in October 2022 and serviced in September 2023.
- 21 new diffusers have been installed upstream fed from a compressor cabinet at White Rock
 - 27 new diffusers have been installed fed from a compressor cabinet at Pipehouse Wharf (5 upstream, 22 downstream)
 - 14 new diffusers have been installed by the barrage.
 - There are 15 existing diffusers downstream from White Rock
- 3.2 Private Drinking Water Supplies - The Team carries out risk assessments and monitoring of private water supplies (supply of water not from a water undertaker or licensed supplier) in line with The Private Water Supplies (Wales) Regulations 2017. There are approximately 125 known private water supplies in the council's area.
- 3.3 Drought Liaison Group – An officer has been attending the Drought Liaison Group meetings, chaired by Welsh Government, called this summer due to prolonged dry spells and the potential for impact upon insufficiency of water supplies.
- 3.4 Swimming Pool samples - The Team monitors the water quality of the council-managed pools and a few private pools on a quarterly basis.

4. Integrated Assessment Implications

- 4.1 The Council is subject to the Equality Act (Public Sector Equality Duty and the socio-economic duty), the Well-being of Future Generations

(Wales) Act 2015 and the Welsh Language (Wales) Measure, and must in the exercise of their functions, have due regard to the need to:

- Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Acts.
- Advance equality of opportunity between people who share a protected characteristic and those who do not.
- Foster good relations between people who share a protected characteristic and those who do not.
- Deliver better outcomes for those people who experience socio-economic disadvantage
- Consider opportunities for people to use the Welsh language
- Treat the Welsh language no less favourably than English.
- Ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs.

4.1.1 The Well-being of Future Generations (Wales) Act 2015 mandates that public bodies in Wales must carry out sustainable development. Sustainable development means the process of improving the economic, social, environmental and cultural well-being of Wales by taking action, in accordance with the sustainable development principle, aimed at achieving the 'well-being goals'.

4.1.2 Our Integrated Impact Assessment (IIA) process ensures we have paid due regard to the above. It also takes into account other key issues and priorities, such as poverty and social exclusion, community cohesion, carers, the United Nations Convention on the Rights of the Child (UNCRC) and Welsh language.

4.2 The work undertaken by the Pollution Control and Private Sector Housing Team aims to mitigate potential adverse impacts on bathing water quality, water pollution incidents and adverse impacts on water quality. The bathing water model is a long-term initiative to enable accurate prediction of bathing water quality in Swansea Bay, through collaboration with NRW.

The response to water pollution incidents is an essential service for the prevention of further environmental implications such as fish health in the River Tawe and public health impacts for recreational water use.

Council officers work on a regular basis with NRW and DCWW in areas concerning water pollution and water quality. We have a collaborative approach to scope out positive responses to improve environmental issues that can arise in watercourses and drainage networks, where legal responsibilities and solutions are often shared.

5. Financial Implications

5.1 Revenue to fund the existing monitoring set out in this report is contained within existing budgets. Additional interventions would require additional funding opportunities and would need to be assessed individually.

6. Legal Implications

6.1 There are no legal implications associated with this report.

Background Papers: None

Appendices:

Appendix A:

Integrated Impact Assessment Screening Form