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SELECT COMMITTEE REVIEW – WATER QUALITY

Thursday 22 February 2024
11.00 am
Warspite Room, Council House

Members:
Councillor Bingley, Chair
Councillor Tuffin, Vice Chair
Councillors McLay, Penrose, Raynsford, Reilly and Tofan.

Members are invited to attend the above meeting to consider the items of business overleaf.

This meeting will be webcast and available on-line after the meeting. By entering the Warspite Room, councillors are consenting to being filmed during the meeting and to the use of the recording for the webcast.

The Council is a data controller under the Data Protection Act. Data collected during this webcast will be retained in accordance with authority's published policy.

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Tracey Lee
Chief Executive

Select Committee Review – Water Quality

Agenda

1. Apologies

To receive apologies for non-attendance submitted by Members.

2. Declarations of Interest

Members will be asked to make any declarations of interest in respect of items on this agenda.

3. Chair's Urgent Business

To receive reports on business, which in the opinion of the Chair, should be brought forward for urgent consideration.

4. Water Quality Review:

4a. Issues and Challenges **(Pages 1 - 22)**

The Committee will hear from Plymouth City Council officers, the Environment Agency, South West Water and Tamar Catchment.

4b. Impact and Opportunities **(Pages 23 - 28)**

The Committee will hear from the University of Plymouth, National Marine Park CEO and community representatives.

4c. New Partnership Approach

4d. Recommendations

Select Committee Review

Date of meeting:	22 February 2024
Title of Report:	**Water Quality – Issues, Challenges and Opportunities**
Lead Member:	Councillor Tom Briars-Delve (Cabinet Member for Environment and Climate Change)
Lead Strategic Director:	Anthony Payne (Strategic Director for Place)
Author:	Kat Deeney (Head of Environmental Planning)
Contact Email:	Kathryn.deeney@plymouth.gov.uk
Your Reference:	240222 PCC WQ Select Committee Report
Key Decision:	No
Confidentiality:	Part I - Official

Purpose of Report

The report has two purposes:

1. To set out the issues, challenges, and opportunities around water quality in Plymouth, with specific reference to Plymouth City Council's roles and responsibilities.
2. To set out a proposed approach to meeting some of the key water quality challenges and securing opportunities through an enhanced collaboration between Plymouth City Council, South West Water, and the Environment Agency. A draft Memorandum of Understanding (MoU) is provided for review that sets out the proposed terms of the collaboration.

Recommendations and Reasons

1. ***Recommendation*** - Accept the conclusion in the report that the issues and challenges with water quality are complex, will increase with predicted climate change and needs an enhanced approach to delivery.

   Reason: *To recognise that enhancing water quality requires a partnership approach to meet existing and new challenges.*

2. **Recommendation** - Support the collaboration set out in the MoU, for a long-term delivery focused relationship with the Environment Agenda and South West Water.

   Reason: *To deliver on opportunities to improve water quality in the short and long term in a manner which maximises benefits.*

Alternative options considered and rejected

1. Do not support an enhanced collaboration with the Environment Agency and South West Water. Rejected as would not achieve an improved approach to water quality enhancement.

Relevance to the Corporate Plan and/or the Plymouth Plan

The proposed collaborative approach to delivering water quality improvements will deliver against policies within the Plymouth Plan including policy 'INT1 - Implementing Britain's Ocean City'. High standards of water quality are essential in supporting the City Vision as well as Plymouth City Council priorities: 'unlocking the City's potential' by making more of the waterfront one of our greatest assets and supporting the UK's first National Marine Park.

Implications for the Medium Term Financial Plan and Resource Implications:

There are no direct financial implications from the report. As specific delivery items are developed as part of the collaboration any financial or resource implications will be fully reviewed at that time.

Financial Risks

There are no financial risks in developing an enhanced collaborative approach to meeting the water quality challenges.

Carbon Footprint (Environmental) Implications:

There are no direct carbon implications in the recommendations proposed. Any delivery actions resulting from the recommendations will seek to reduce carbon as well es enhance other environmental benefits.

Other Implications: e.g. Health and Safety, Risk Management, Child Poverty:

** When considering these proposals members have a responsibility to ensure they give due regard to the Council's duty to promote equality of opportunity, eliminate unlawful discrimination and promote good relations between people who share protected characteristics under the Equalities Act and those who do not.*

Click here to enter text.

Appendices

**Add rows as required to box below*

Ref.	Title of Appendix	**Exemption Paragraph Number** (if applicable) *If some/all of the information is confidential, you must indicate why it is not for publication by virtue of Part 1 of Schedule 12A of the Local Government Act 1972 by ticking the relevant box.*						
		1	**2**	**3**	**4**	**5**	**6**	**7**
A	Briefing report – Water quality, issues, challenges, and opportunities.							
B	Draft Memorandum of Agreement							

Background papers:

**Add rows as required to box below*

Please list all unpublished, background papers relevant to the decision in the table below. Background papers are <u>unpublished</u> works, relied on to a material extent in preparing the report, which disclose facts or matters on which the report or an important part of the work is based.

Title of any background paper(s)	**Exemption Paragraph Number** (if applicable) *If some/all of the information is confidential, you must indicate why it is not for publication by virtue of Part 1of Schedule 12A of the Local Government Act 1972 by ticking the relevant box.*						
	1	**2**	**3**	**4**	**5**	**6**	**7**

Sign off:

Fin	CH 09.02.24 1221	Leg	2304/0902 24	Mon Off		HR		Assets		Strat Proc	

Originating Senior Leadership Team member: Philip Robinson, Service Director, Street Services.

Please confirm the Strategic Director(s) has agreed the report? Anthony Payne, Strategic Director of Place Yes

Date agreed: 12/02/2024

Cabinet Member approval: Councillor Tom Briars-Delve (Cabinet Member for Environment and Climate Change)

Date approved: 12/02/2024

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Water Quality – Issues, Challenges and Opportunities

Select Committee Briefing Report – February 2024

EXECUTIVE SUMMARY

The Plymouth City vision is to be '*One of Europe's most vibrant waterfront cities, where an outstanding quality of life is enjoyed by everyone*.' Plymouth Sound is also the UK's first National Marine Park, where more people will be getting in, on, under and next to the water. The cleanliness of the water is therefore very important for the City, its citizens and the wildlife within the Sound. The waterfront is one of our greatest assets supporting economic prosperity and the water quality of Plymouth Sound needs to be excellent. This paper sets out the role and responsibilities of Plymouth City Council in supporting an agenda to improve water quality in Plymouth Sound.

In November 2023 the Growth and Infrastructure Overview and Scrutiny Committee reviewed a paper on water quality issues, challenges and opportunities in Plymouth. The overview report covered the challenges of the current 'combined' drainage system and how the outputs from this system will rise with the predicted changes in rainfall patterns as a result of climate change. It also reviewed the opportunities for a combined investment programme with partners and working on a new nature based approach to addressing the current and future issues. The Committee agreed to:

1. Note the report;
2. Agreed to establish a Select Committee by March 2024 focused solely on Water Quality, inviting key stakeholders and user groups to provide evidence for consideration and review.

The Select Committee on Water Quality has been established to seek evidence on the issues, challenges and opportunities from statutory agencies, University of Plymouth, stakeholders and users of Plymouth Sound National Marine Park. The Scrutiny Committee were keen to ensure the Select Committee sought positive ways to improve the water quality situation. To resolve water quality issues will require a collaborative and innovative approach, which not only addresses current issues but also addresses future challenges. A draft Memorandum of Understanding (MoU) for a long-term enhanced collaboration between Plymouth City Council, South West Water and the Environment Agency has been developed building on existing joint working. This is included in Appendix I for the Select Committee to review and feedback on the proposed approach.

WATER QUALITY - ISSUES, CHALLENGES AND OPPORTUNITIES

Plymouth City Council (PCC) Roles and Responsibilities

Bathing Waters

Water quality is important for people, wildlife and Plymouth. The Select Committee will hear evidence from stakeholders and users on the importance of Plymouth Sound National Marine Park (PSNMP) and therefore how high standards of water quality is vital.

Currently there are 3 sites within the PSNMP that are formally designated as Bathing Waters:

- Plymouth Hoe West (Designated 1988)
- Plymouth Hoe East (Designated 1988)
- Plymouth Firestone Bay (Designated 2023)

At each of the three designated sites the Environment Agency (EA) monitors bathing water quality, weekly from 15th May to 30th September, from an identified sampling point at the site. Their role is to investigate any sources of pollution and recommend measures to improve water quality.

At the three designated sites Plymouth City Council must, during the official bathing season, put up signs that show the current water quality and any advice against bathing.

Bathing waters are given an annual classification of 'excellent', 'good', 'sufficient' or 'poor' by the EA. Plymouth Hoe East and West are both classified as 'excellent', Firestone Bay is a new bathing water and it has been classed in its first year as 'excellent'. Although the Bathing Waters were classified as excellent there are short term pollution events which do impact water quality and designated bathing waters are only monitored 15th May to 30th September.

The Environment Agency monitors water quality and the bathing waters are at times subject to short term pollution events. At these times PCC must put up signs advising against bathing. The EA makes a daily pollution risk forecast based on the effects of rain and wind on bathing water quality. These factors affect the levels of bacteria that get washed into the sea from livestock, sewage and urban drainage via rivers and streams and how they disperse.

At times these factors combine to make short term pollution likely, and the EA issues a pollution risk warning on their website and PCC must display a sign. After a short-term pollution event, levels of bacteria typically return to normal after a day or so but it's possible to have several warning days in a row.

Natural Environment Designations

Plymouth Sound contains many designations for nature as follows:

- Plymouth Sound & Estuaries Special Area of Conservation (SAC)
- Tamar Estuaries Complex Special Protection Area (SPA)
- Tamar Estuaries Site Marine Conservation Zone (MCZ)

The need for 'clean' water underpins the estuaries' ecological functions and therefore it is important that water quality is improved for the nature of the Sound.

The Tamar Estuaries Consultative Forum (TECF) is a partnership of organisations and local authorities with statutory responsibility towards the management of the Plymouth Sound & Tamar Estuaries Marine Protected Area (MPA). The Forum meets three times a year to review progress on the objectives of the Tamar Estuaries Management Plan, discuss activities, incidents and developments that may impact the marine environment, and to provide a consistent, holistic and collaborative management approach for the MPA. Plymouth City Council is a core member of TECF and provides the secretariate role for the partnership.

Shell Fisheries

Within Plymouth City Council's (PCC) Port Health District has responsibility for monitoring classified shell fisheries. The commercial production and sale of live bivalve molluscs, e.g. clams, cockles, mussels, oysters, scallops etc. is strictly controlled, as they have the potential to cause serious illness due to the way in which they feed. PCC carries out sampling of harvesting areas within the Plymouth Port Boundary. The results are used by the Food Standards Agency to classify these areas according to the *E.coli* levels in the shellfish sampled. The classification determines the areas where shellfish can be collected, and how the shellfish have to be treated after harvesting to ensure they are safe to eat.

Within the PCC Port Health District there are two shellfish beds in the River Yealm which were recently declassified. There is a proposal for re-classification, however this is being hampered by concerns about historical chemical contamination and remediation plans. Once classified, these beds are accessible only by boat and must be sampled monthly as part of the national biotoxin programme and also for maintaining classification. The water quality around the shellfish beds has been deteriorating and this impacts Plymouth City Council as increased sampling is required when quality fails.

Plymouth Sound National Marine Park

The UK's first National Marine Park (NMP) values the environment, heritage and economy of Plymouth Sound and its estuaries. It is where people and planet will come together to realise a new, sustainable relationship with the sea.

It will create opportunities for residents and visitors to reconnect with and explore the ocean in exciting new ways. Working alongside residents and the wider community is key to changing the way a City interacts with its environment; to care for, protect it and use it in different ways to develop a healthier and more harmonious relationship with the ocean. The NMP will encourage more people to get in, on, under and next to the water so the quality of the water needs to be excellent.

PCC is also the accountable body for the PSNMP Horizons project, which has recently received substantial funding from the National Lottery Heritage Fund for a 5 year delivery programme.

Water Quality - Issues and Challenges

The Bathing Water classification for the three sites in Plymouth that have been assessed as 'Excellent' but there are a number of current issues impacting the standard of water quality in Plymouth Sound, which are detailed below. There are also future challenges that need to be addressed.

Issues

Combined Sewer Overflows

CSO are built into the sewerage network and may operate automatically during heavy rainfall to protect properties from flooding. During a storm event, heavy or prolonged rainfall can rapidly increase the flow in the combined sewer and may cause it to be overwhelmed. Storm overflows are designed to act as a safety valve by releasing excess storm water automatically into the sea or a river when this happens. At times of increased rainfall there isn't always enough capacity to contain the volumes. If storm overflows didn't exist within the currently designed network storm water wouldn't have anywhere to go, which would result in homes, businesses and streets being flooded.

CSO use has received a lot of attention and SWW have committed to reduce spills from storm overflows to an average of 20 per year by 2025 across the region. There are CSO's that function within Plymouth Sound.

Misconnections

Wrongly connected domestic waste-water pipes can affect the bathing water quality. Modern sewerage systems have two separate systems, one takes foul sewage to sewage treatment plants, the

other takes rainwater runoff through surface water drains to rivers and the sea. Misconnections occur when waste water pipes are plumbed into surface water drains instead of the foul water sewerage system. This can give rise to pollution when the waste water is discharged directly to the environment through the surface water drain. This often happens when a washing machine or toilet is incorrectly plumbed so that it discharges to the surface drain rather than the foul sewage drain. The EA, South West Water and the Council continue to work together to identify and rectify any problems when they arise.

Urban Run-Off

In Plymouth's built-up areas pollutants can accumulate on hard surfaces such as roads and car parks which can then be washed into the sewer network during rainfall. At times this 'urban run-off' enters surface water drainage systems, and the pollutants are then discharged directly into watercourses and Plymouth Sound untreated. This can cause issues for water quality.

Agricultural Run-Off

Agricultural run-off can impact water quality and the catchments that surround Plymouth have many agricultural uses. The use of fertilisers and pesticides from some farming practices can contribute to poor water quality. Rainfall run-off from farmland carries chemicals and faecal matter into streams and rivers. As soil is eroded it deposits silt, and the phosphates and nitrates contained within it, into watercourses.

Microplastics

Microplastics are very small particles of plastic debris with a diameter of less than five millimetres. These microplastics come from a number of sources including from the breakdown of larger items of plastic litter in the environment, such as plastic packaging and water bottles and particles resulting from the breakdown of tyres. It is estimated that there are now trillions of microplastic particles in the marine environment.

Microplastics are an issue as they pose a risk to nature. They can be eaten by a wide range of animals and studies have shown the potential for this to lead to harmful effects. Scientists have estimated that unless things change there will be wide scale and potentially irreversible effects.

Industrial Discharges

Any industrial waste water discharges will now require a permit from the Environment Agency. This could be from industrial processes, waste operations or mining activities. Although current discharges are required to comply with stringent environmental standards historic discharges can continue to cause water quality issues.

Everyone Playing Their Part

The incorrect disposal of fats oils and greases, and plastic cleaning wipes and other sanitary products flushed into foul water drains is congealing into blockages that cost companies and customers in the region of £100 million a year. This incorrect disposal of materials is adding pressures to the sewerage system that cause sewer overflows to spill more frequently.

Unavoidable Climate Change

The anticipated impacts of unavoidable climate change are likely to result in changing weather patterns that could exacerbate water quality issues. Changes are predicted to include:

- Milder, wetter winters with an increase in rainfall intensity and frequency
- Increase in the intensity and frequency of storms
- Rising sea levels and increased coastal erosion

There is a clear link between flood risk and water quality issues in the urban environment of Plymouth and therefore increased rainfall and the intensity of that rainfall needs to be taken into account when designing solution to improve water quality.

Complexity of Water Quality Improvements

The ownership of surface water drainage features is fragmented across a range of both public and private parties, including local authorities, highway authorities, water companies, and private individuals and businesses. DEFRA has acknowledged that the powers and duties to manage drainage features are often less than clear cut and the regulation, duties and responsibilities are split across government agencies and local authorities. This makes developing solutions to complex issues more challenging.

Opportunities

Partnership Work

The Environment Agency, South West Water and the Council have been working together to seek solutions to water quality and flooding in a joined up and collaborative manner. Through the alignment of capital programmes the partnership have been delivering work to add capacity to the infrastructure systems and planning longer term solutions. An Integrated Urban Drainage Model has been produced to support and help direct the prioritisation of works across Plymouth through the current partnership. Currently, Plymouth City Council has 19 projects on the current flood risk management programme of works and many of the projects have been designed to deliver the multiple benefits of flood reduction and water quality improvements.

In addition to related flood resilience projects that will support water quality outcomes, WaterFit is a South West Water programme that will also support enhanced water quality. It is the next stage of South West Waters environment strategy and '*will be going further and faster to protect and enhance the South West's waters for future generations, with a £330m of investment over three years and focused on protecting our 860' miles of coastline and rivers*. Waterfit has 6 pledges including nurturing healthy rivers and seas. In Plymouth, the investment is set to help reduce the risk of environmental impact from the sewerage network, and to contribute towards improving bathing water quality at Plymouth Hoe. SWW have earmarked circa £20,000,000 of investment in Plymouth up to March 2025.

Further funding is also being sought to develop natural flood management projects. In September 2023 the Environment Agency and Defra announced £25 million of national funding for improving flood resilience through a new Natural Flood Management (NFM) programme. The aim of the programme is to reduce flood risk with NFM methods in a manner which also delivers wider benefits including water quality. The Council and partners developed and submitted a bid to this fund for £700k to pilot approaches to natural flood management an urban environment, which would also support improvements in water quality. The fund states that Government and Environment Agency will announce the successful projects in early 2024.

Community Partnership

In addition to significant capital projects PCC has been working with communities to highlight water related issues. Specifically, the Building Resilience in Communities (BRIC) has been working to ensure communities are better able to prepare for and manage if flooding occurs. The findings from the first 2 years of BRIC indicate that communities in Plymouth are ill-prepared for flooding and lack knowledge on how to respond or who to contact during a flood event. This suggests that if their

properties or businesses were to be flooded, they would struggle to recover effectively. The project has been working to support at-risk communities in becoming more resilient and resourceful.

There is a need to increase awareness of the risk of surface water flooding throughout the City and educate people on the changes they can make to mitigate this risk. Significant progress has been made in building trust and promoting behavioural changes to establish a flood resilience network. However, it is important to maintain ongoing community engagement to create flood-aware and prepared communities, residents, and businesses in Plymouth.

Although BRIC has been focused on flood resilience the project has started to raise awareness of the connection between flooding and water quality. Importantly it establishes a pathway to working with communities, so they are enabled to support solutions. The expansion of this approach will be vital in delivering enhance water quality outcomes.

Nature Innovations

In addition to the alignment of work programmes, the Council has been working with South West Water to look at the delivery of nature-based solutions (NBS) as part of the wider programme of work to improve water quality and reduce flood risk. This work is underway with the commencement of a natural catchment plan being conducted for Plymouth.

IMPROVING WATER QUALITY – ENHANCED PARTNERSHIP PROPOSAL

It is clear that improving water quality is essential for the City of Plymouth. Enabling people to enjoy the UK's first NMP, enabling wildlife to thrive and ensuring the waterfront remains one of our greatest assets supporting economic prosperity. To deliver this will require increased investment and a collaborative approach to delivery. Maximising the direct benefits to the water environment but also indirectly supporting the City by delivering in a manner that creates jobs and opportunities for people to develop skills.

South West Water, Environment Agency and Plymouth City Council have been working together for many years, seeking to work together to deliver outcomes. However, with the increased focus on water quality, the designation of the UK's first NMP in Plymouth Sound and the increasing risk of climate change it has been agreed an enhanced and long-term partnership approach is needed. This will build on the work so far and seek to deliver more together.

Appendix 1 to this paper is a draft MoU proposed between the 3 organisations for an enhanced partnership which will span 10 years. The aims and ambitions of the proposed partnership are as follows:

Our collaborative approach seeks to build and expand on existing good practice in Plymouth, such as the Integrated Urban Drainage Modelling Project and take a holistic and place-based approach to water management to create a Plymouth Plan for Water. Our purpose is to meet the future water management challenges jointly and collaboratively. This includes a commitment to;

- ***further develop a shared understanding of the challenges faced in Plymouth, especially with reference to increasing climate change impacts.***
- ***identify further synergies and partnership opportunities between our planned investment programmes and wider working.***
- ***work together to identify more holistic solutions with greater impact and with a focus on developing a 'Green First' approach to water quality improvement project development.***
- ***enabling greater levels of community engagement, understanding and community codesign of solutions to water management.***
- ***deliver investments and programmes in a more integrated way to maximise the benefits (including wider social, environmental and economic benefits) and mitigate risk.***
- ***identify and address critical gaps – for example resource gaps through shared bids or developing innovative financial models for investment gaps; and***
- ***jointly explore wider opportunities and levers that can support our shared ambition e.g. with other key city partners and national stakeholders.***

The MoU sets a proposed approach to delivering this work. The proposed partnership approach will not resolve all of the issues impacting water quality in Plymouth. Further work with wider partners will be needed to resolve issues relating to microplastics and agricultural run-off, but it will be a positive start to enhancing water quality.

SUMMARY

The importance of a high-quality natural environment with excellent water quality is essential in meeting the City vision and delivering the UK's first National Marine Park. However, the issues and challenges facing water quality are diverse and complex. To resolve all these issues will require a

collaborative and innovative approach, which not only addresses current issues but also meets future challenges.

There are however great opportunities to improve water quality alongside, reducing flood risk and enhancing places for people and nature. The proposed MoU will start to draw together key partners to deliver improvement works and develop innovation in this area of work. The importance of a partnership approach to this area of work is reflected in the recommendations below.

RECOMMENDATIONS

Recommendation - Accept the conclusion in this report that the issues and challenges with water quality are complex, will increase with predicted climate change and needs an enhanced approach to delivery.

Reason*: To recognise that enhancing water quality requires a partnership approach to meet existing and new challenges.*

Recommendation - Support the collaboration set out in the MoU, for a long-term delivery focused relationship with the Environment Agency and South West Water.

Reason: *To deliver on opportunities to improve water quality in the short and long term in a manner which maximises benefits.*

MEMORANDUM OF UNDERSTANDING (MOU) – Water Quality Improvement Partnership

PURPOSE OF THIS MEMORANDUM OF UNDERSTANDING (MOU)

This non-exclusive, mutually beneficial agreement is made on [ ] between the South West Water, Environment Agency and Plymouth City Council (the "**parties**"). The parties wish to record the basis on which they will extend their collaboration with each other on the Programme (as defined below) to improve the water quality within Plymouth and within Plymouth Sound National Marine Park. This MoU sets out the intended objectives of the Programme, the principles of collaboration and the parties' respective responsibilities and activities. It will provide a reference point throughout the Programme.

This MoU does not imply any legal partnership, joint venture, or contract, nor does it affect each party's ability to work with other parties. Neither party shall hold itself out as agent for the other party and neither party shall have authority to enter into any agreement or incur any liability or obligations on behalf of the other party at any time.

PARTIES

Name, Registered Name and short name:	South West Water ("**SWW**")	The Environment Agency ("EA")	Plymouth City Council ("**PCC**")
Registered Number:			
Description:	South West Water looks after the water and wastewater services for 1.8 million customers across Cornwall, Devon, the Isles of Scilly and parts of Dorset and Somerset	Environment Agency is a non-departmental Public body	Plymouth City Council is a unitary authority
Property/Location:	Peninsula House, Rydon Lane, Exeter, Devon, England, EX2 7HR	Sir John Moore House, Victoria Square, Bodmin	Ballard House, West Hoe Road, Plymouth

OUTLINE OF THE PARTIES' INTENTIONS

AIMS AND OBJECTIVES	Our collaborative approach seeks to build and expand on existing good practice in Plymouth, such as the Integrated Urban Drainage Modelling Project[i] and take

	a holistic and place-based approach to water management to create a Plymouth Plan for Water. Our purpose is to meet the future water management challenges jointly and collaboratively. This includes a commitment to • further develop a shared understanding of the challenges faced in Plymouth, especially with reference to increasing climate change impacts. • identify further synergies and partnership opportunities between our planned investment programmes and wider working. • work together to identify more holistic solutions with greater impact and with a focus on developing a 'Green First' approach to water quality improvement project development. • enabling greater levels of community engagement, understanding and community codesign of solutions to water management. • deliver investments and programmes in a more integrated way to maximise the benefits (including wider social, environmental and economic benefits) and mitigate risk. • identify and address critical gaps – for example resource gaps through shared bids or developing innovative financial models for investment gaps; and • jointly explore wider opportunities and levers that can support our shared ambition e.g. with other key city partners and national stakeholders.
TERM AND TIMINGS	The proposed start date of the Programme is **1st April 2024**. The proposed end date of the Programme is **1st April 2034** A review will take place three years into the Programme to assess how partners are delivering against the Programme aims and objectives and report to respective Leadership Teams **[PCC CMT and SWW Board, EA leadership]** This will give partners the options to refine and recommit to another three-year period. Programme delivery will be monitored by: • A Strategic Group meeting quarterly, and comprising **senior leaders from all three partner organisations.**

	• Highlight report to Leadership Teams in respective bodies on annual basis.
PRINCIPLES OF COLLABORATION	The parties agree to the following principles of collaboration: **1. Deliver solutions at scale and be ambitious for the future city of Plymouth, its citizens and its marine and water systems**. **2. Enable innovation:** pioneer new models of delivery and act as a catalyst for change across Plymouth, the region and the UK. 3. **Combine strengths:** to deliver more together than we can alone and combine resources, capacity and expertise to increase our collective impact. 4. Act as a **critical friend, champion and advocate,** mitigating risks, overcoming barriers and pursuing opportunities. 5. **Build trust and act in good faith,** fostering mutual confidence between teams and presumption of sharing relevant data and information. 6. **Strive for continual improvement**, through a learning and sharing mentality and a working culture that is agile, iterative and fast-paced and appropriately risk taking. 7. **Protect the partners**: Adhere to statutory requirements and best practice: comply with applicable laws and standards including in respect of health and safety, data protection and processing.

INTENDED DELIVERABLES

DELIVERABLES	Through the Programme, the Partners will: 1. Develop a Green First approach for improving water quality in Plymouth that can be delivered from a 'hyper local' street level to city scale including modelling opportunities, trade-offs and benefits and integrating new approaches into future investment cycles.

	2. Map existing resources and investment programmes and model against challenges. This intelligence will then enable opportunities to be explored to lever greater benefits and outcomes through collaboration and pooling of resources, testing and evaluating innovative approaches. 3. Deliver a joint, sustained and collective citizen engagement and involvement programme to give Plymothians visibility of the water challenges and enable community level action to respond to the challenges. 4. Seek additional resources to close the gaps and robustly meet the challenges facing all the organisations. 5. Deliver a suite of programmes that collectively improve the Water Quality in the UK's first National Marine Park and wider water management challenge of the city at an accelerated pace. 6. Utilise the enhanced collaboration to seek new opportunities for skills development and development of green jobs in the City. 7. Design and deliver interventions in a manner which maximises the impacts for other aligned programmes of work including specifically climate resilience (drought and flood) and delivering the greatest benefits for people and nature. In the initial 3 year period (2024-2027) we will: ➢ Create a 'Plan for Water' that builds on all existing work including; ➢ measures identified in the Flood Risk Management Plan. ➢ the developing Natural Catchment Management Plan. ➢ work within priority catchments to drive our ambitions and ensure a collaborative and accelerated programme of delivery. ➢ Scope options and develop the 'Green First' approach for Plymouth, including seeking opportunities across the wider public estate and other bodies. ➢ Completion of a number of natural flood management exemplars in our parks and greenspaces and ensuring full evaluation and learning. Exemplars including Central Park. ➢ Test and evaluate the Climate Pioneer Street approach.

	➢ Develop an innovative environment finance model and citywide implementation scheme to secure new sources of investment for this work. ➢ Jointly seek and secure funding / resources to enable us to create a meaningful and appropriately fast paced programme. ➢ Investigate options to deliver new skills and green career programmes linked to the work of the partnership.
FINANCING OF THE PROJECT	*The partnership will utilise existing resources to develop the work programme detailed in this agreement. The greatest benefit will be the alignment of these existing resources. Delivery and innovation of approach will require funding. This will be drawn from existing programmes, but better alignment will ensure added value. In addition, the partnership will work collaboratively to secure further funding for innovations in approach.*
INTELLECTUAL PROPERTY	a) All Intellectual Property Rights developed or created by respective **parties** pursuant to the Programme shall be owned by respective **parties**. b) Each party grants to the other party a non-exclusive, personal, royalty free licence during the Term of the Programme to use Intellectual Property generated for the purposes of the Programme. c) All Intellectual Property Rights not developed or created by a party pursuant to the Programme but owned or controlled by a party and made available by such party to the other for use in relation to the Programme ("**Background IPR"**) shall remain in the ownership of the relevant party. d) Each party shall immediately give written notice to the other party of any actual, threatened or suspected infringement of any party's Intellectual Property Rights used in connection with the Project of which it becomes aware. "**Intellectual Property Rights**" means all patents, rights to inventions, copyright and related rights, moral rights, trademarks, trade names and domain names, rights in get-up, rights in goodwill or to sue for passing off, rights in designs, rights in computer software, database rights, rights in confidential information (including know-how and trade secrets) and any other intellectual property rights, in each case whether registered or unregistered

	and including all applications (or rights to apply) for, and renewals or extensions of, such rights and all similar or equivalent rights or forms of protection which may now or in the future subsist in any part of the world. If valuable intellectual property is to be produced by the parties as part of joint commission, a binding contract with specific IP provisions could be explored.
ORGANISATIONAL SPONSERS and	PCC Sponsor: Cllr Tom Briars-Delve Cabinet Member for Environment and Climate Change. SWW Sponsor: Susan Davy, CEO South West Water EA Sponsor: Mark Rice, Area Director, Environment Agency
KEY CONTACTS	The key contacts shall be responsible for the day-to-day running of the Programme. • PCC key contact: Kathryn Deeney, Head of Environmental Planning, Plymouth City Council Email Kathryn.Deeney@plymouth.gov.uk • SWW key contact: Carolyn Cadman Director for Natural Resources, South West Water, Email ccadman@southwestwater.co.uk • EA key contact: Bruce Newport, Area Environment Manager, Environment Agency, bruce.newport@environment-agency.gov.uk
ESCALATION	If either party has any issues, concerns or complaints about the Programme, or any matter in this MoU, that party shall notify the other party's key contacts and the parties shall then seek to resolve the issue by a process of consultation. If the matter cannot be resolved by the key contacts within 14 days, the matter may be escalated to the Sponsors for resolution.
ANNOUNCEMENTS	The parties when making any public announcement or communication concerning the Programme (an "**Announcement**") shall consult together on the timing, contents and manner of release of any Announcement, and put in place communications protocols and joint working between our teams to support this. When making any public announcement or communication on matters outside of the Programme across the range of work that both Partners do separately, the Partners will give prior notice and ensure a transparent and effective flow of communications, particularly where it may impact on the other Partner in terms of reputation or brand.

	Wherever possible the parties shall agree the content of such Announcements prior to publication. Neither party shall use the trade marks of the other party without that party's prior consent.

MISCELLANEOUS

TERMINATION & REVIEW	Whilst this Programme is ongoing, this MoU will be reviewed on an annual basis on or around its anniversary to ensure that it is still fit for purpose by the Strategic Group. The terms of this MoU may be amended at any time by mutual written consent.
DATA PROTECTION	a) Each party shall ensure that it and its contractors and staff engaged in the Programme do not cause the other party to breach any laws relating to personal data or privacy in force from time to time ('**Data Protection Laws**') and that it complies with those Data Protection Laws. b) The Parties do not expect that the Partners shall process personal data on behalf of the other Partner in connection with the Programme. In the event that a Partner does process personal data on behalf of the other Party, the Partner shall notify the other Party immediately in writing and shall enter into a data processing agreement, and where necessary complete a Data Protection Risk Assessment.
ACKNOWLEDGEMENT	Each party acknowledges that SWW is a water company and is obliged to operate within its powers and apply its resources in accordance with its approved business plans. Each party acknowledges that PCC is a local authority and is obliged to operate within its powers and apply its resources in accordance with its statutory objects.

	Each party acknowledges that the EA is an executive non-departmental government body, sponsored by The Department for Environment and Rural Affairs and is obliged to operate within its powers and apply its resources in accordance with its statutory objects.
GOVERNING LAW	This MoU shall be governed by and construed in accordance with English law.

Jointly Signed by:

Signature _____
Cllr Tom Briars-Delve Cabinet Member for Environment and Climate Change
For and on behalf of Plymouth City Council -

and

Signature _____
Susan Davy
for and on behalf of South West Water

and

Signature _____
Mark Rice
for and on behalf of Environment Agency

_____

Report to the Select Committee on Water Quality in Plymouth Sound

Elaine Hayes
Chief Executive of Plymouth Sound National Marine Park

My background
I thought I should lay out my experience for the benefit of the committee to provide some context to my views on why we are where we are and what can and should be done to move the debate towards finding solutions to what are complex problems.

I began my career with Severn Trent Water and hold a qualification in sewage treatment and operational management of water and sewage treatment works. I was a process scientist for 5 years and ran some of the most technically advanced sewage works in the UK. I am a published author on the subject and specialised in treatability issues at non-compliant sewage works. I went on to run an environmental consultancy before moving into the third sector. I am a Chartered Member of the Institute for Water and Environmental Management and a Fellow of the Royal Society of Biology.

Water Quality – context
The challenges we collectively face around water quality have been with us for many, many years. And successive generations and governments have failed to tackle the problems effectively and their impact is cumulative. Legislation has not delivered the water quality that the planet needs, remembering always that anything discharged into a freshwater system inevitably finds its way into our ocean.

It is true that water quality has improved over the last 20 years; but we are at a crucial pivot point; improvements have stalled and the pressure on our freshwater and marine ecosystems from population growth, climate change and long term, intractable problems, overlaid with the biodiversity crisis means that we are losing the battle!

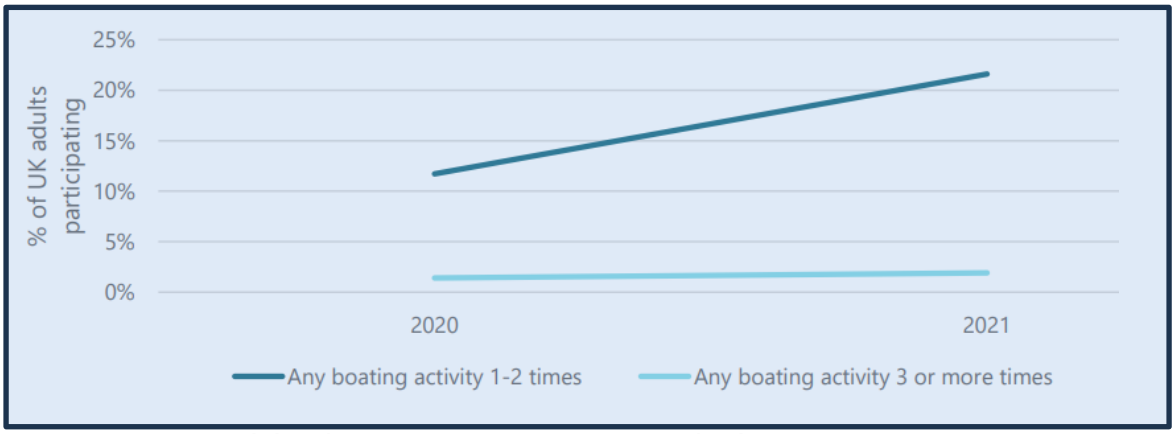
"Deeply, deeply concerning adverse environmental trends continue. With the depleted state of our natural environment and the unprecedented pace of climate change, it does seem to many that we are at a crossroads. It is not easy for us as a nation to choose the right path, the right trajectory and to travel together at the pace needed, but we simply must.

"Government must speed up its efforts. Many policies are in the early stages or are long awaited. In some areas the right policies are in place, but now must be implemented quickly."

Office for Environmental Protection January 2023

Recreation and use of the ocean
The magnitude, duration and frequency of use of our water bodies for recreation has seen a paradigm shift since Covid; with lock down restricting travel people discovered the delights of their own neighbourhoods, many of which included rivers and coastal areas.

This, combine with the growing interest in watersports means that interest in water quality is on the rise.



Watersports Participation Survey 2021. RYA and others.

There is also a still growing increase in (wild) swimming which is good for both our physical and mental health. According to the Outdoor Swimming Society, swimming in rivers and the sea increased in 2018 4.1 million people in the UK swam in rivers and oceans. More recent figures are not available but there is no question that this is a growing. Activity and importantly, from a microbial quality perspective, is now well-established year-round.

The Plymouth numbers.
Ocean City Swimmers Plymouth - 4300
Devon Wild Swimming - 18500
Cornwall Wild Swimming - 9800

Canoeing, Kayaking and Paddleboarding
According to the RYA report some 7.6 million people participated in 2021 – up a huge 127%.

The Plymouth dimension.
Plymouth has a unique freshwater ecosystem as the rivers that discharge into the Sound are all rias. This means that they were formed as a result of global ice melt and therefore do not have a clear and defined source. The rivers that drain into Plymouth Sound all have a rich and diverse history of mining and other activities that have a legacy impact on the quality of water in the Sound.

For the benefit of this committee, I am going to focus on 3 key aspects that I feel are the highest priorities in terms of water quality and these are:

1. Water quality to drive nature recovery.
2. Water quality that supports recreational use
3. Water quality education to drive better outcomes.

1. Water quality to drive nature recovery.

The quality of water has a direct impact on our ability to help nature recover. The embodied temperature rise that we will see in our rivers and seas as a result of climate change cannot be undone. Therefore, if we are going to regenerate our wildlife, we need to use all other means at our disposal to create a resilience in species and habitats that allows this to continue.

	Rivers	Lakes	Estuaries	Coasts
2019	14%	14%	19%	45%

Table 2: The percentage of waters achieving good ecological status by water body type

Taken from the most recent Environment Agency Report on Water Framework Directive Compliance. January 2023.

What needs to change for wildlife?

The challenges for wildlife are:

1. Water quantity (not the subject of this committee)
2. Nutrients (human and agriculture)
3. Physical changes to water bodies that restrict movement/change habitat.
4. Historic pollution from minewaters

This paper will focus on 2-4.

Nutrients

Undoubtedly sewage discharges and agricultural run-off cause eutrophication (enrichment) of our rivers and seas. Nutrients cause algal blooms that can be toxic to wildlife and remove oxygen from the water, overgrowth of species that can take rapid advantage of the nutrients thus preventing slower growing species from establishing. Nutrients can promote the growth of one plant on another (epiphytes) Not all epiphytes are bad! But in the case of seagrass in Plymouth Sound excess nutrients and epiphytic growth kills the fragile sea grass.

Agricultural run off in the Lower Tamar, notably phosphates is one of the reasons for the river failing to meet the required standard.

Physical changes to water bodies
Straightening of rivers and the addition of weirs prevents the free movement of species up and down rivers. Our rivers are home to rare and important species that are struggling because they cannot reach suitable habitat to spawn. Whilst not a water quality issue in itself supporting the renaturalisation of rivers will support nature recovery.

Historic pollution from minewaters
Minewaters, metals are a key reason for failure to meet good ecological status. We currently have few proposals on managing minewaters. This is an area that would benefit from further attention.

2.Water quality that supports recreational use
For most people in, on or under the sea, their major focus is, understandably, the microbial quality. The sources of microbial pollution, and the relative risk is poorly understood. Focus of frustration and ire is around South West Water discharges which are a major contributory factor – but not the only one. Bacteria can also come from agriculture, and nature – so understanding the source, the risk and when to choose not to access the water needs to be better managed and better understood.

SWW must be held to account for illegal discharges and pollution incidents but importantly the investigations to understand the source of microbial pollution is vital and needs to be prioritised.

> Tackling sewer overflows can also be achieved through effective regulation. We are currently investigating the regulation of combined sewer overflows by the three lead public authorities (the Secretary of State, Ofwat and the EA). Our investigation to date leads us to believe that there may have been failures to comply with environmental laws by all three of the public authorities, resulting in the regulatory system operating in a sub-optimal way.

Office for Environmental Protection January 2023

The Storm Overflows Discharge Reduction Plan – when finally released by DEFRA- will be vitally important in managing microbial impact. But equally as important will be the monitoring of delivery.

Bathing Waters Monitoring and year-round swimming.
The Bathing Waters regulations are over 50 years old and do not reflect our usage of marine and freshwaters. There is a need to push national government to amend the legislation but in the interim, there are opportunities to understand microbial quality outside of the current legislation to better inform people to make decisions about being in, on or under the water.

3.Water quality education that delivers better outcomes
People in the city (and across the UK) have a limited understanding around how the drainage and sewage treatment system operates. This can be

evidenced by a simple statistic that 60% of sewer blockages are caused by wet wipes – which should never be put down the toilet.

Helping people understand what individuals can do; things that are free and make the environment better should be core to PCC messaging. This can be incorporated with other environmental messaging around recycling etc and can be embedded within the marine citizenship programme of the Horizons Project.

We can also leverage the power of the National Marine Park digital platform to share educational films and messages to support this.

What can be done?

Individuals

- Improve understanding of how their behaviour impacts on water quality.
- Challenge SWW to deliver a house programme of water butts and water saving devices and ensure they are adopted and used.

Communities

- Use community champions to help develop better understanding of our drains and where they go.
- Use our

The city

- Adopt the nature first option for all works done in the city and ensure that any development reduces the nutrient load on the rivers and coasts.
- Holding companies to account for their performance and non-compliance. All companies, not just water companies.
- Leverage the reach of the National Marine Park to support better water quality.
- Engage with relevant NGOs who have expertise in delivering water quality improvements.
- Seek an annual report and holding to account so further actions can be identified if required.
- Develop a set of short films that can be shared widely to deepen understanding of how the systems work and how people can help.
- Publicise performance – good and bad on water quality that affects Plymouth rivers and coasts.

Beyond.

- Advocate for a change in legislation that means that Bathing Waters are monitored year-round and prioritised through the AMP investment programme.

- Engage with other coastal local authorities to ensure we deliver best in class here.