

Scrutiny Inquiry Panel - Protecting, Preserving and Promoting The River Itchen in Southampton

Thursday, 17th November, 2022
at 5.30 pm

PLEASE NOTE TIME OF MEETING

Council Chamber - Civic Centre

This meeting is open to the public

Members

Councillor Savage (Chair)
Councillor Bunday
Councillor Cooper
Councillor Moulton (Vice-Chair)
Councillor White

Contacts

Democratic Support Officer
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Scrutiny Manager

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PUBLIC INFORMATION

Role of Scrutiny Panel Inquiry –

Purpose: In partnership with stakeholders to identify opportunities to protect, preserve and promote the River Itchen in Southampton.

Use of Social Media:- The Council supports the video or audio recording of meetings open to the public, for either live or subsequent broadcast. However, if, in the Chair's opinion, a person filming or recording a meeting or taking photographs is interrupting proceedings or causing a disturbance, under the Council's Standing Orders the person can be ordered to stop their activity, or to leave the meeting.

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Details of the Council's Guidance on the recording of meetings is available on the Council's website.

Southampton: Corporate Plan 2020-2025

sets out the four key outcomes:

- Communities, culture & homes - Celebrating the diversity of cultures within Southampton; enhancing our cultural and historical offer and using these to help transform our communities.
- Green City - Providing a sustainable, clean, healthy and safe environment for everyone. Nurturing green spaces and embracing our waterfront.
- Place shaping - Delivering a city for future generations. Using data, insight and vision to meet the current and future needs of the city.
- Wellbeing - Start well, live well, age well, die well; working with other partners and other services to make sure that customers get the right help at the right time

Public Representations

At the discretion of the Chair, members of the public may address the meeting about any report on the agenda for the meeting in which they have a relevant interest.

Smoking policy – the Council operates a no-smoking policy in all civic buildings.

MOBILE TELEPHONES:- Please switch your mobile telephones or other IT to silent whilst in the meeting.

Fire Procedure – in the event of a fire or other emergency a continuous alarm will sound and you will be advised by Council officers what action to take.

Access – access is available for the disabled. Please contact the Democratic Support Officer who will help to make any necessary arrangements.

Dates of Meetings: Municipal Year 2022/2023

6 October 2022
17 November 2022
1 December 2022
19 January 2023
16 February 2023
2 March 2023
20 April 2023

CONDUCT OF MEETING

Terms of Reference

The terms of reference of the Committee are contained in the Council's Constitution.

Business to be discussed

Only those items listed on the attached agenda may be considered at this meeting.

Rules of Procedure

The meeting is governed by the Council Procedure Rules as set out in Part 4 of the Constitution.

Quorum

The minimum number of appointed Members required to be in attendance to hold the meeting is 2.

Disclosure of Interests

Members are required to disclose, in accordance with the Members' Code of Conduct, **both** the existence **and** nature of any "personal" or "prejudicial" interests they may have in relation to matters for consideration on this Agenda.

Personal Interests

A Member must regard himself or herself as having a personal interest in any matter

- (i) if the matter relates to an interest in the Member's register of interests; or
- (ii) if a decision upon a matter might reasonably be regarded as affecting to a greater extent than other Council Tax payers, ratepayers and inhabitants of the District, the wellbeing or financial position of himself or herself, a relative or a friend or:-
 - (a) any employment or business carried on by such person;
 - (b) any person who employs or has appointed such a person, any firm in which such a person is a partner, or any company of which such a person is a director;
 - (c) any corporate body in which such a person has a beneficial interest in a class of securities exceeding the nominal value of £5,000; or
 - (d) any body listed in Article 14(a) to (e) in which such a person holds a position of general control or management.

A Member must disclose a personal interest.

Continued/.....

Prejudicial Interests

Having identified a personal interest, a Member must consider whether a member of the public with knowledge of the relevant facts would reasonably think that the interest was so significant and particular that it could prejudice that Member's judgement of the public interest. If that is the case, the interest must be regarded as "prejudicial" and the Member must disclose the interest and withdraw from the meeting room during discussion on the item.

It should be noted that a prejudicial interest may apply to part or the whole of an item.

Where there are a series of inter-related financial or resource matters, with a limited resource available, under consideration a prejudicial interest in one matter relating to that resource may lead to a member being excluded from considering the other matters relating to that same limited resource.

There are some limited exceptions.

Note: Members are encouraged to seek advice from the Monitoring Officer or his staff in Democratic Services if they have any problems or concerns in relation to the above.

Principles of Decision Making

All decisions of the Council will be made in accordance with the following principles:-

- proportionality (i.e. the action must be proportionate to the desired outcome);
- due consultation and the taking of professional advice from officers;
- respect for human rights;
- a presumption in favour of openness, accountability and transparency;
- setting out what options have been considered;
- setting out reasons for the decision; and
- clarity of aims and desired outcomes.

In exercising discretion, the decision maker must:

- understand the law that regulates the decision making power and gives effect to it. The decision-maker must direct itself properly in law;
- take into account all relevant matters (those matters which the law requires the authority as a matter of legal obligation to take into account);
- leave out of account irrelevant considerations;
- act for a proper purpose, exercising its powers for the public good;
- not reach a decision which no authority acting reasonably could reach, (also known as the "rationality" or "taking leave of your senses" principle);
- comply with the rule that local government finance is to be conducted on an annual basis. Save to the extent authorised by Parliament, 'live now, pay later' and forward funding are unlawful; and
- act with procedural propriety in accordance with the rules of fairness.

AGENDA

1 APOLOGIES AND CHANGES IN MEMBERSHIP (IF ANY)

To note any changes in membership of the Panel made in accordance with Council Procedure Rule 4.3.

2 DISCLOSURE OF PERSONAL AND PECUNIARY INTERESTS

In accordance with the Localism Act 2011, and the Council's Code of Conduct, Members to disclose any personal or pecuniary interests in any matter included on the agenda for this meeting.

NOTE: Members are reminded that, where applicable, they must complete the appropriate form recording details of any such interests and hand it to the Democratic Support Officer.

3 DECLARATIONS OF SCRUTINY INTEREST

Members are invited to declare any prior participation in any decision taken by a Committee, Sub-Committee, or Panel of the Council on the agenda and being scrutinised at this meeting.

4 DECLARATION OF PARTY POLITICAL WHIP

Members are invited to declare the application of any party political whip on any matter on the agenda and being scrutinised at this meeting.

5 STATEMENT FROM THE CHAIR

6 MINUTES OF THE PREVIOUS MEETING (INCLUDING MATTERS ARISING)

(Pages 1 - 4)

To approve and sign as a correct record the minutes of the meeting held on 6 October 2022 and to deal with any matters arising, attached.

7 PROTECTING, PRESERVING AND PROMOTING THE RIVER ITCHEN IN SOUTHAMPTON - THE RIVER ENVIRONMENT

(Pages 5 - 28)

Report of the Scrutiny Manager outlining the focus of the second meeting of the inquiry and requesting that the Panel consider the comments made by the invited guests and use the information provided as evidence in the review.

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SCRUTINY INQUIRY PANEL - PROTECTING, PRESERVING AND PROMOTING THE
RIVER ITCHEN IN SOUTHAMPTON

MINUTES OF THE MEETING HELD ON 6 OCTOBER 2022

Present: Councillors Cooper, Savage and White

Attendance via hybrid link: Councillors Bunday, Moulton

1. **ELECTION OF CHAIR AND VICE-CHAIR**

RESOLVED that:

- (i) Councillor Savage be elected as Chair for the Municipal Year 2022/2023; and
- (ii) Councillor Moulton be elected as Vice-Chair for the Municipal Year 2022/2023.

2. **INQUIRY TERMS OF REFERENCE**

Representations were received from Mark Pirnie, Scrutiny Manager, who was in attendance and with the consent of the Chair addressed the Panel.

Resolved: that the Inquiry Panel noted the Inquiry Terms of Reference and approved the final version of the outline inquiry project plan as presented in the report of the Director of Legal and Business Services.

3. **PROTECTING, PRESERVING AND PROMOTING THE RIVER ITCHEN IN
SOUTHAMPTON - INTRODUCTION, CONTEXT AND BACKGROUND**

The Panel considered the report of the Director of Legal and Business Services detailing an introduction to ownership and responsibilities, legislation and guidelines and feedback from community surveys regarding the River Itchen in Southampton.

The Cabinet Member for Transport and Regeneration, Councillor Keogh, with the consent of the Chair, launched the Inquiry by outlining the importance of the River Itchen to Southampton.

The Panel received the following representations:

Dr David Rumble, CEO Wessex Rivers Trust, outlined the importance of the River Itchen within the city of Southampton and summarised the key issues as:

- The River Itchen has global importance as a spring fed chalk stream and has Special Area Conservation status due to its provision of a habitat for specific plants and animals, including Atlantic Salmon.
- The tidal zone of the River Itchen contains mud flats which form part of a Special Protected Area for bird life in the Solent.
- Industrialisation, including at the Woodmill, has had an impact upon the River Itchen and its habitats which is in contrast to the nearby River Test. It would be possible to restore lost habitats.
- The River Itchen is now recognised to have importance to people who use it recreationally, to the benefit of their health and wellbeing. It can connect communities, and people live on it and near it.

- The River Itchen is of importance to local communities and the local economy. Boatyards, marinas, auxiliary industries and aggregates businesses are based on and around it, and generate wealth and employment.
- There are concerns about the water quality. Chalk acts like a sponge and whatever was applied to land in the river's catchment area over decades can get into the river. Pollutants contaminate the river through watercourses, highways run-off, fertilisers, pesticides, sewage, industrial processes, littering and wrecks. It is noted that developers are now required to offset nitrates entering the river for new developments. This has an impact on habitats and ecology and is a problem for recreational users of the river.
- Climate change has had an impact on the River Itchen as drought has led to increased water extraction up river to provide for increasing demand whilst the Itchen Corridor is also a flood risk zone. This is likely to cause a net loss of diversity within the ecological systems of the river over coming decades.

Sam Foulds, Flood Risk Management Team Leader, and Cara Brims, Flood Risk Officer, from Southampton City Council delivered a presentation to provide an overview of ownership, legal responsibilities, users and legislation affecting the River Itchen within the city of Southampton and summarised the key issues as:

- The River Itchen is fed by multiple smaller river catchments from a wide area of Hampshire, and activities within this area will have an impact on the river.
- Land based activities will affect the water quality in the river as run-off from buildings and roads is collected by surface water sewers and drains and will enter watercourses without being treated. It is noted that new developments will include provision of sustainable drainage systems to slow flow and reduce the number of combined sewer overflows and improve the quality of highway run-off by working with nature to recharge the ground where the rain is falling.
- No single organisation oversees the management of the river. Multiple landowners and organisations have separate roles and responsibilities including:
 - The Crown Estate owns and manages most of the foreshore area between mean high water and low water marks and the bed of the estuary.
 - Southampton City Council owns areas of land along the river and small areas of the mudflats.
 - Riparian landowners own areas of land along the river.
 - Other key organisations include the Environment Agency, Southern Water Services Ltd, Associated British Ports, the Marine Management Organisation, and Natural England.
 - Each organisation has its own vision, plan, framework and strategy.
 - Southampton City Council has no single plan for the River Itchen.
 - Many Acts of Parliament, Directives and Regulations apply to the River Itchen concerning water, environment, biodiversity, drainage and flooding.

Findings from recent community surveys were reported to the Panel:

- Rose Nicole, a volunteer and member of Friends of Chessel Bay Nature Reserve and of Respect the River Campaign, addressed the Panel, summarising the key issues as:
 - Chessel Bay was designated as a nature reserve by Southampton City Council in 1989, has the longest stretch of undeveloped shoreline along the lower River Itchen and has remained a secluded haven for wildlife in a busy urbanisation.
 - Litter is a significant problem and ranges from thousands of plastic pellets produced by local factories to huge polystyrene blocks encased in concrete. Volunteers supported by officers from Southampton City Council undertake community clean-ups on Saturdays and typically remove a ton of rubbish each time.
 - The Respect the River Campaign was formed as a response to plastics pollution, but additional concerns were raised by people living, using or working on, and near, the river and their main concern was about sewage.

- Mark Pirnie, Scrutiny Manager, Southampton City Council, delivered a presentation giving an overview of the initial findings from the River Itchen Inquiry Survey and summarising the key issues as:
 - The survey was hosted on the Southampton City Council website, ran from 21 September to 3 October 2022 and asked five questions.
 - 728 responses were received. Approximately 90% of respondents were residents of Southampton.
 - When asked how people use the river the most popular response was walking or cycling along the riverbank (78%).
 - Most respondents desire improvements to water quality (87%), natural habitats (75%) and access to the waterfront (63%).
 - Detailed analysis of all the comments received has not been completed and further results will be reported to the Panel at future meetings.

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DECISION-MAKER:	SCRUTINY INQUIRY PANEL
SUBJECT:	PROTECTING, PRESERVING AND PROMOTING THE RIVER ITCHEN IN SOUTHAMPTON – THE RIVER ENVIRONMENT
DATE OF DECISION:	17 NOVEMBER 2022
REPORT OF:	SCRUTINY MANAGER

<u>CONTACT DETAILS</u>			
Executive Director	Title	Director of Legal and Business Services	
	Name:	Richard Ivory	Tel: 023 8083 2794
	E-mail	Richard.ivory@southampton.gov.uk	
Author:	Title	Scrutiny Manager	
	Name:	Mark Pirnie	Tel: 023 8083 3886
	E-mail	Mark.pirnie@southampton.gov.uk	

STATEMENT OF CONFIDENTIALITY

None

BRIEF SUMMARY

In accordance with the inquiry plan, for the second meeting of the ‘Protecting, Preserving and Promoting the River Itchen in Southampton Inquiry’ the Panel will be considering the following issues:

- The river environment and plans for improvement, including:
 - Habitat and biodiversity
 - Water quality and water usage
 - Chessel Bay case study

RECOMMENDATIONS:

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| | (i) | The Panel is recommended to consider the comments made by the invited guests and use the information provided as evidence in the review. |
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REASONS FOR REPORT RECOMMENDATIONS

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| 1. | To enable the Panel to compile a file of evidence in order to formulate findings and recommendations at the end of the review process. |
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ALTERNATIVE OPTIONS CONSIDERED AND REJECTED
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| 2. | None. |
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DETAIL (Including consultation carried out)
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| 3. | At the second meeting of the inquiry the Panel will be considering the river environment. Findings from the River Itchen Survey that was conducted prior to the inaugural inquiry meeting, identified improvements to the water quality (87%) and improvements to natural habitats and biodiversity (75%) as the |
|----|--|

	improvements that most respondents would like to happen to the River Itchen in Southampton.
4.	<p>To develop the Panel’s understanding of the issues the following guests have been invited to the meeting:</p> <p>Graham Horton, Thames Solent Team Manager from Natural England</p> <ul style="list-style-type: none"> Graham Horton has been asked to provide an overview of the ecological interest of the River Itchen in Southampton; to identify the threats and challenges to the Itchen ecology and to provide a view on how Natural England’s role in promoting recreation sits alongside ecology ambitions for the river. <p>Dr David Rumble, Chief Executive Officer at Wessex Rivers Trust</p> <ul style="list-style-type: none"> The Environment Agency were asked to attend the Panel meeting to present an overview of the water quality of the River Itchen in Southampton. They have been unable to provide a representative to attend the meeting but have kindly submitted detailed feedback that has been attached as Appendix 1. <p>In the absence of representatives from the Environment Agency, Dr Rumble has been invited back to provide the Panel with details on water quality within the River Itchen in Southampton and sources of pollution. Wessex Rivers Trust is an environmental charity dedicated to the conservation of chalk streams and rivers in Wessex, working towards healthy rivers for wildlife and people.</p> <p>David Murphy, Wastewater Investment Strategy Manager & Andrew Adams, Wastewater Catchment Planning Manager from Southern Water</p> <ul style="list-style-type: none"> David Murphy and Andrew Adams have been invited to discuss the environmental challenges caused by the existing infrastructure; the developing Drainage and Wastewater Management Plan for the Test & Itchen Catchment; and Southern Water’s proposals to improve facilities and reduce the discharge of waste product into the river. <p>Lindsay McCulloch – Natural Environment Manager, Southampton City Council</p> <ul style="list-style-type: none"> Lindsay McCulloch will be exploring issues relating to water quality, pollution and potential solutions using Chessel Bay as a case study.
5.	<p>At the inaugural meeting of the inquiry the introductory presentations outlined a number of potential causes of pollution impacting on the River Itchen in Southampton. In anticipation that they may be raised at the 17 November meeting information relating to the following are attached as appendices:</p> <p>Appendix 2 – Southampton’s Nitrogen Mitigation Position Statement</p> <p>In-order to comply with the provisions of the Habitat Regulations to ensure that development does not adversely affect the integrity of a European designation, in 2022 Southampton City Council approved a policy whereby new development which leads to a net increase in residential or hotel units</p>

	<p>must be subject to an appropriate assessment to demonstrate how mitigation measures will be implemented to achieve nitrogen neutrality.</p> <p>Appendix 3 – Water pollution from highways</p> <p>Land based activities can influence water quality as runoff from buildings and roads, collected by surface water sewers and highway drains, is in some areas directed to watercourses. Appendix 3 contains feedback from SCC officers outlining steps the City Council, and our partner Balfour Beatty Living Places (BBLP) are considering, or taking, to reduce pollution into the River Itchen or connected watercourses via the highway network. It also references a review undertaken in Buckinghamshire that may provide useful insight.</p> <p>Appendix 4 – Marinas and the river environment</p> <p>Feedback provided by MDL Marinas, who manage 19 marinas, including Saxon Wharf, Shamrock Quay and Ocean Village Marina on the River Itchen, to develop the Panel’s understanding of actions that are being taken to reduce the impact of marinas on the environment.</p>
6.	The invited guests will take questions from the Panel relating to the evidence provided. Copies of any presentations will be made available to the Panel.
RESOURCE IMPLICATIONS	
<u>Capital/Revenue/Property/Other</u>	
7.	None
LEGAL IMPLICATIONS	
<u>Statutory power to undertake proposals in the report:</u>	
8.	The duty to undertake overview and scrutiny is set out in Part 1A Section 9 of the Local Government Act 2000.
<u>Other Legal Implications:</u>	
9.	None
RISK MANAGEMENT IMPLICATIONS	
10.	None
POLICY FRAMEWORK IMPLICATIONS	
11.	None
KEY DECISION?	No
WARDS/COMMUNITIES AFFECTED:	None
<u>SUPPORTING DOCUMENTATION</u>	
Appendices	
1.	Briefing from the Environment Agency on the River Itchen
2.	Southampton Nitrogen Mitigation Position Statement
3.	Water pollution from highways
4.	Marinas and the river environment

Documents In Members' Rooms

1.	None	
Equality Impact Assessment		
Do the implications/subject of the report require an Equality and Safety Impact Assessment (ESIA) to be carried out?		No
Data Protection Impact Assessment		
Do the implications/subject of the report require a Data Protection Impact Assessment (DPIA) to be carried out?		No
Other Background documents available for inspection at:		
Title of Background Paper(s)	Relevant Paragraph of the Access to Information Procedure Rules / Schedule 12A allowing document to be Exempt/Confidential (if applicable)	
1.	None	

River Itchen Water Quality

Our regulatory role

The Environment Agency works to create better places for people, wildlife and support sustainable development. We put the climate emergency at the heart of everything we do and help society adapt to environmental challenges. We improve and protect the quality of our air, land and water by tackling pollution.

We do this by:

1. regulating farms, factories and other businesses to minimise polluting emissions to air, water and land
2. regulating waste treatment and disposal sites
3. permitting the removal of water from surface and groundwater and the discharge of substances to water
4. responding to a range of emergencies including pollution of water, illegal dumping of hazardous waste and illegal fishing
5. working with conservation organisations to create and restore important habitats
6. licensing fishing and monitoring fish health in our rivers and fisheries across England

Water Company regulation remains a priority for us. All water companies have strict conditions around the discharge of effluent specified through their permits. We do everything we can with the legal powers and resources we have, to set protective permits and act where there is failure to comply with measures designed to protect our inland and coastal waters.

We authorise the discharge of storm sewage from sewage works or storm overflows when heavy rainfall overloads the sewer network. This is necessary to prevent the flooding of people's homes, workplaces and neighbourhoods with sewage. Storm overflows are subject to strict conditions which are set out in the environmental permits for each site. These require minimum dilution levels and other measures to protect the environment.

Part of our role is to ensure Water Companies invest in improvements to their wastewater treatment systems in line with legislative requirements and this is managed through the Asset Management Plan (AMP) process. This is a 5 yearly investment programme which is part of their business plan and is regulated by OFWAT.

Our monitoring role

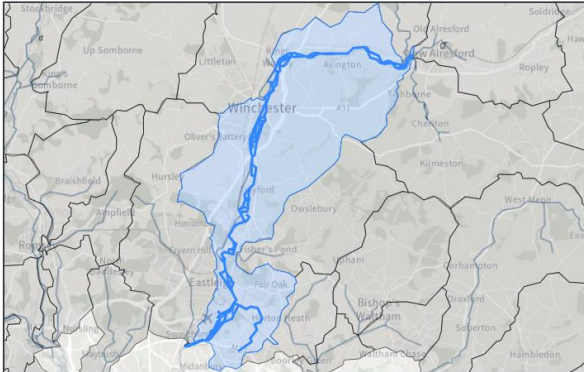
We monitor the state of the water environment by measuring water quality, water quantity and ecology. This allows us to understand the overall health of aquatic ecosystems and manage the pressures impacting upon them. Much of our monitoring data is now available online. As an example of the data available, here is the link to data from the River Itchen at Cobden Bridge. [Open WIMS data](#)

We also welcome the various emerging citizen science initiatives that contribute valuable information on water quality to help everyone involved to identify and prioritise action.

Water quality in the River Itchen

Our Catchment Data Explorer summarises information about the water quality status and ecological health of each water body. The 2 water bodies of relevance here are the River Itchen and Southampton Water.

Itchen Water Body Good ecological status



SOUTHAMPTON WATER Water Body Moderate ecological status



[Itchen | Catchment Data Explorer | Catchment Data Explorer](#)

[SOUTHAMPTON WATER | Catchment Data Explorer | Catchment Data Explorer](#)

Ecological Status

Under the Water Framework Directive, the River Itchen is classified as being at Good Ecological Status.

Southampton Water is classified as being at Moderate Ecological Status. The reasons why this water body does not achieve good status relate to Dissolved Inorganic Nitrogen and mitigation measures.

Chemical Status

The chemical status for both the River Itchen and Southampton Water is defined as failing due to priority hazardous substances. For the 2019 assessment of chemical status we have changed some methods and increased our evidence base. Due to these changes, all water bodies now fail chemical status and this assessment is not comparable to previous years assessments.

There are 4 groups of global pollutants (uPBTs) causing these failures: polybrominated diphenyl ethers (PBDEs - a group of brominated flame retardants); Mercury; certain Polycyclic aromatic hydrocarbons (PAHs) and Perfluorooctane sulfonate (PFOS) a group of per- and polyfluoroalkyl substances (PFAS) which is being assessed for the first time.

There is little underlying change in chemical status for chemicals that are not uPBTs. If uPBTs are excluded then chemical status assessment is comparable to previous years' assessments.

In previous assessments, the chemical status of the River Itchen was classified as Good. The chemical status of Southampton Water was previously classified as Moderate due to elevated levels of Tributyltin but in the 2019 classification, this classification element achieved Good status.

In common with many rivers, levels of nutrients such as nitrates and phosphates are elevated above natural levels in the River Itchen. Our evidence also shows that run-off can introduce high levels of sediment into the river in certain areas which can smother gravels and affect the associated habitats and species.

Sources of pollution in the River Itchen

The main sources of potential point source pollution (single, easily identified points of discharge) in the Itchen include treated wastewater, storm water from sewerage systems, pollution from privately owned sewage treatment works and septic tanks, road run-off and other discharges from trade premises, fish farms and watercress beds in the upper catchment.

Diffuse pollution is another main source of potential pollution. Urban diffuse pollution can include activities like people putting substances, such as car oil, into the surface water drainage systems and road and roof drainage entering via surface water drains. Rural sources of diffuse pollution are often associated with farming and other land management practices and the maintenance of land drainage systems.

What we are doing to improve water quality in the River Itchen

Water Companies

- We are holding water companies to account to reduce pollution, tackle storm overflows and invest more of their profits into the environment.
- We are prosecuting the most serious polluters: on 9 July 2021 Southern Water was sentenced to pay a record £90 million fine after pleading guilty in court to 6971 unpermitted pollution discharges which polluted rivers and coastal waters in Kent, Hampshire and Sussex.
- Improvements have been funded for the main sewage treatment works on the River Itchen and permit limits tightened further than in other river systems because of the river's designation as a Special Area of Conservation (SAC). Permit limits were set to the technically achievable limit (the best wastewater quality that was achievable with wastewater technology) at the time. Limits for phosphorus have been added to the permits of the larger discharges to prevent nutrient enrichment of the river's ecosystem to protect and improve the condition of the SAC and protect it from deterioration.
- Woolston wastewater treatment works has recently been upgraded and fitted with membrane filtration treatment, primarily to reduce nutrient pollution. An additional benefit is that it will also significantly reduce the levels of faecal bacteria in the sewage effluent.
- Permit limits are reviewed in the 5 yearly AMP process to ensure that consented limits are in line with any legislative changes or improvement in treatment technology and national policies.
- We are also working with Water Companies and other organisations and stakeholders on Drainage and Wastewater Management Plans (DWMP) for the Test and Itchen. These plans identify risks to the environment from wastewater and drainage and identify where improvements need to be made to prevent deterioration or harm.

Farmers and landowners

We are working with farmers to support environmentally friendly farming that doesn't damage water quality.

A dedicated agricultural team has been set up and they have been visiting farms across Hampshire and Sussex. We are providing advice and guidance to ensure that good practice is being followed and any necessary measures to protect the environment are implemented.

We work with other agencies including Natural England (Catchment Sensitive Farming Officers) to influence best practice land use to reduce run-off and lower pollution.

Monitoring and evidence

Using our evidence and monitoring data we can consider trends across a wide range of elements and establish reasons for failure or not achieving Good status.

In recent years, we have also been using innovative surveillance techniques to understand the sources of pollution and target our work to improve water quality. One example is working with others to map the risk of sediment entering the Test and Itchen.

We use models to determine where diffuse pollution is coming from and to assess nutrient losses from land. Models can also help us to consider options to reduce pollution risks.

Use of these monitoring and modelling tools ensure that we can target action to the places and activities that will reduce the risk of pollution and provide most benefit to the environment.

Working with others

There are many partnerships and groups that we work with in the Itchen catchment. Examples include:

- Test & Itchen Catchment Partnership. We work with them to deliver projects and to carry out investigations to seek out potential courses of action for environmental improvements [Catchment Management \(wessexrt.org.uk\)](http://wessexrt.org.uk)
- Solent Forum have been adopting a 'source to sea approach' and gathering evidence around freshwater catchment impacts on estuaries and coastal zones [Solent Forum - Home page](#)

Together with Southampton City Council, the University of Southampton and others, we are helping clear the Chessel Bay National Nature Reserve of nurdles. These small plastic pellets have been a significant issue in the Itchen Estuary for over a decade and can seriously harm wildlife and habitats. Last year we helped fund a successful trial of a nurdle clean-up technique, which will now be used across Chessel Bay.

Building on the success of this work, we are now looking to support the development of a much larger 'preventing plastic pollution' partnership project that will aim to clean up plastic pollution across the wider River Itchen Estuary, as well as help reduce the amount of plastic entering the environment in the first place through engagement with local communities and businesses.

Influencing development

We provide consultation advice on Marine Management Organisation (MMO) Marine Licence applications, including assessing capital and maintenance dredge applications as well as proposed works along the banks of the tidal Test, Itchen and Southampton Water. The most recent example of our input to an MMO Marine Licence application on the Itchen Estuary relates to an application to maintenance dredge at Merlin Quay in December 2021; we conditioned the dredge to ensure that sediment containing contaminants would not be disposed of within a Water Framework Directive water body.

In our role as statutory consultee on certain planning applications, we can seek to implement measures to reduce run off from developments and highways and reduce the impact of other urban diffuse pollution sources.

What you can do to help

We respond to environmental incidents to stop and reverse damage to our rivers. We prioritise our resources to incidents that cause the most serious and significant risk to the environment. Information about our response to environmental incidents is published [online](#).

customer service line
03708 506 506

incident hotline
0800 80 70 60

floodline
03459 88 11 88

If members of the public see any sign of pollution, they should call our incident hotline on 0800 80 70 60 to report this to us. The information provided to our advisors is logged onto our system. We combine this incident information with other data. This helps us to assess how serious the incident could be.

Conclusions

We continue to work with government, the water industry, farmers and others to improve water quality in the River Itchen and all our rivers and we are making the case for the funding we need to protect the environment in England. We also need more investment from the farming and water industries and for local catchment partnerships to do their part.

Only wider action through water company investment, better farming practices and simple steps taken in the home to prevent sewer misuse will help ensure we have healthier sewers, cleaner rivers and a better environment for all.

November 2022

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SOUTHAMPTON NITROGEN MITIGATION POSITION STATEMENT

1. Summary

- 1.1 In-order to comply with the provisions of the Habitat Regulations to ensure that development does not adversely affect the integrity of a European designation, new development which leads to a net increase in residential or hotel units must be subject to an appropriate assessment to demonstrate how mitigation measures will be implemented to achieve nitrogen neutrality.
- 1.2 The mitigation measures must be implemented and effective at the point of occupation of the development. They must also be legally secured for the duration of the development's effects (based on Natural England's published advice, generally taken to be 80 to 125 years).
- 1.3 The requirement applies to any proposal for:
 - Class C use (dwellings, houses in multiple occupation, hotels, residential institutions including student accommodation) and also sui generis houses in multiple occupation.
 - Planning applications (full or outline / reserved matters) and prior approvals.
 - New development or changes of use.
- 1.4 The requirement for mitigation measures is based on the net increase in the number of dwelling units (or equivalent).
- 1.5 In-order for the council to conduct an appropriate assessment, the applicant must submit a nitrogen budget and provide the necessary information regarding the efficacy of mitigation measures.

Note

- 1.6 This Position Statement is informed by and should be read in conjunction with Natural England's published advice (see below). It is also informed by additional work undertaken by the council. The Statement has been prepared in consultation with Natural England and with the Partnership for South Hampshire. The Statement will be updated if required as Natural England's Advice is updated or as other information becomes available.

2. Introduction

- 2.1 Southampton is a highly sustainable location for appropriate major growth (in accordance with the city's development plan). This maximises the use of sustainable modes of travel (reducing carbon emissions), protects surrounding areas of countryside, and promotes social inclusion and a dynamic city economy. This growth should be delivered whilst protecting the surrounding biodiversity designations. Southampton City Council will continue to work with the Partnership for South Hampshire (PFSH), the Government, Natural England, the Environment Agency, Southern Water, neighbouring councils and others to ensure this is achieved.

- 2.2 The Solent Maritime Special Area of Conservation, the Solent and Southampton Water Special Protection Area and Ramsar Site and the Solent and Dorset Coast SPA (the “Solent international designations”) are protected by the Habitats Regulations¹. (The Solent is also protected by the Water Environment Regulations² and by national designations such as Sites of Special Scientific Interest).
- 2.3 In summary, the Habitat Regulations state that before deciding to grant planning permission for a project which is likely to have a significant effect on a European designation (either alone or in combination with other plans/projects), the council must make an appropriate assessment of the project and ascertain that it will not adversely affect the integrity of the European designation having regard to the manner in which it is proposed to be carried out and any conditions to which the permission will be subject.
- 2.4 Case law establishes that this test must be applied using the ‘precautionary principle’, such that there is no reasonable scientific doubt as to the conclusion, including regarding the efficacy of any proposed mitigation measures.
- 2.5 Having carried out an appropriate assessment, the council must consult Natural England as the appropriate nature conservation body and have regard to any representations it makes before reaching a decision. Whilst the council must place considerable weight on the opinion of Natural England, it is entitled to form a different opinion where it has good reason to do so.
- 2.6 Southampton’s adopted development plan includes the amended Core Strategy (2015). In summary, policy CS22 states that the Council will ensure that development does not adversely affect the integrity of international designations, and the necessary mitigation measures are provided.

3. Natural England’s Advice

- 3.1 Natural England have advised that there are high levels of nutrients in the Solent. These are arising from inputs from agricultural sources, and from the waste water from housing and other developments. These are causing eutrophication, resulting in dense mats of green algae and other effects which are impacting on the Solent’s protected habitats and bird species. Some of the interest features in the Solent designations are in an unfavourable condition due to existing levels of nutrients and are therefore at risk from additional nutrient inputs.
- 3.2 Therefore, Natural England advise that further development is likely to have a significant effect on the Solent international designations. In accordance with the precautionary principle, and in-order to provide the level of certainty required by the Habitat Regulations, relevant new development should achieve nutrient neutrality.
- 3.3 Natural England have published their latest advice on nutrients and a nutrient budget calculator in March 2022. The calculator should be used in association with the council’s occupancy rate calculator (see below). These can be found on the Council’s Sustainability Checklist, current link: <https://www.southampton.gov.uk/planning/planning-permission/sustainability-checklist/>

¹ Conservation of Habitats and Species Regulations 2017 (as amended)

² Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

- 3.4 The advice sets out the location and type of development affected, the methodology for calculating the nutrient budget, and appropriate mitigation measures. The key points are reflected in this position statement. Nitrogen is the principal nutrient from within the city which drives eutrophication, and so the focus is on achieving nitrogen neutrality.
- 3.5 The effect of the Habitat Regulation provisions in respect of nitrates apply to any proposal that will result in a net gain of residential units (this includes dwellings, houses in multiple occupation [small and large], and residential institutions including student accommodation), or a net increase in hotel space. (In other words, the requirement for mitigation measures is based on the net increase in nitrogen discharge from the proposed development). An appropriate assessment will be required for all planning applications (full and outline / reserved matters) and prior approvals, whether for new development or changes of use of existing buildings.
- 3.6 The remainder of this Statement sets out:
- How to calculate the nitrogen budget.
 - The mitigation measures that could be used to achieve nitrogen neutrality.
 - Implementation mechanisms.

4. Calculating the Nitrogen Budget

- 4.1 In-order for the Council to conduct an appropriate assessment, the applicant must submit a nitrogen budget and provide the necessary information regarding the efficacy of mitigation measures.
- 4.2 Developers should calculate the nitrogen budget for their proposal. The council's approach is adapted from Natural England's starting point in one respect, to take account of the size of dwellings (see below). Developers should therefore use the council's occupancy rate calculator. This occupancy rate should then be inputted into Natural England's calculator. This includes all the relevant factors, including the application of an overall precautionary buffer of 20%, to calculate the nitrogen budget.
- 4.3 Other relevant developments (e.g. hotels and residential institutions including purpose built student accommodation) should calculate the nitrogen budget based on the same overall approach and using well-evidenced occupancy rates / water use data relevant to the proposal.
- 4.4 A development's nitrogen discharges arise from two sources, both of which are reflected in the calculator:
1. Waste water discharges
- 4.5 The calculator takes into account the projected number of people living in a dwelling (the occupancy rate) and the water use per person (based on water efficiency standards) in-order to calculate total water use. The nitrogen limit at the relevant waste water treatment works is then applied, in-order to calculate the nitrogen discharge.
- 4.6 The starting point for Natural England's advice is to apply a 'flat rate' occupancy rate of 2.4 persons per dwelling based on national data. However, the advice recognises that councils

may apply a different occupancy rate based on local data and dwelling types, where there is robust evidence. For the determination of specific planning applications, the council will apply an occupancy rate for specific sizes of dwellings (based on the number of bedrooms), as set out in Table 1. Therefore, developers should use the council’s occupancy rate calculator and input the result into Natural England’s calculator. 1 and 2 bed dwellings have occupancy rates which are lower than the ‘flat rate’ used by Natural England, whereas 3 or more bed dwellings have higher occupancy rates. This provides a more accurate calculation for the specific development proposed. The council’s occupancy rate calculator should be used in all cases. The evidence for the council’s figures is set out in Appendix 1.

Table 1: Occupancy Rate by Size of Dwelling

Size of Dwelling	Occupancy Rate (Persons per dwelling)
1 bed	1.41
2 bed	2.13
3 bed	2.74
4 bed	3.43
5 bed	4.09
Average of above	2.4

- 4.7 Natural England’s calculator then applies the average water use based on the relevant water efficiency standard and adding an additional 10 litres per person per day (as a precautionary approach). The council will condition new dwellings to achieve a water use of 100 litres per person per day, and so the water use figure to apply in the calculator is 110 litres per person per day.
- 4.8 The occupancy rate is then multiplied by the water use per person to calculate the overall household’s water use. Based on the council’s calculator, which uses more specific occupancy rates, a household’s water use (and hence the dwelling’s nitrogen budget) is calculated to be lower for 1 and 2 bed dwellings and higher for 3 or more bed dwellings (compared to Natural England’s approach).

2. Surface water discharges

- 4.9 This section follows the Natural England calculator, with no variation. The calculator takes into account changes in the areas dedicated to different land uses within the site, as these result in different levels of nitrogen discharge. These include for example 3 types of urban area (‘residential’³, ‘commercial/industrial’ and ‘open urban’), as well as green spaces. Residential urban use results in the highest level of discharge, and green spaces the lowest level of discharge. Changes between land uses will affect the net change in nitrogen discharge.
- 4.10 Where the redevelopment of a previously developed urban site involves the provision of a new area of appropriately managed green space of approximately 0.1 hectares⁴ or more

³ Urban Residential includes gardens, roadside verges, small areas of green space (less than 0.1 hectares), driveways and roads

⁴ Green spaces of less than 0.1 hectares are calculated within the ‘urban residential’ category

within the new development, the net effect will be a reduction in the amount of nitrogen being discharged from the site as surface water run-off.

- 4.11 Green roofs will only potentially count as green space for the purposes of nitrogen reduction where they meet the size criteria above. Wetlands may achieve further reductions in nitrogen discharge. In both cases, appropriate specialists will need to establish a bespoke design and robustly evidenced calculation to achieve and demonstrate the reduction in nitrogen discharge.
- 4.12 The green space or wetland needs to be appropriately managed to ensure nitrogen reduction (e.g. no fertiliser, collection of dog waste, etc.), and this needs to be legally secured for the duration of the development.
- 4.13 The provision of open space within a development will also need to accord with the development plan's overall approach, for example regarding the density of development and provision of green infrastructure.
- 4.14 The calculator will identify the total nitrogen budget generated by the proposal, and hence the level of mitigation required to achieve nitrogen neutrality (if the budget shows a net increase in nitrogen discharge).

Waste Water Treatment Work Upgrades

- 4.15 If waste water treatment work upgrades are undertaken to meet higher nitrogen limits, the consequent reduction in nitrogen discharges will be taken into account in stage 1 above. In May 2021, the Environment Agency confirmed that it will be undertaking a review of waste water treatment work consents where they do not currently have nitrogen permits, including the Portswood treatment works within Southampton.

5. Mitigation Measures

- 5.1 There are various options for mitigating nitrogen discharges from new development, and in each case the efficacy of the mitigation and its long-term provision will need to be evidenced and secured before planning permission can be granted. Bespoke site-specific mitigation proposals will be considered on a case-by-case basis.
- 5.2 The mitigation measures must be implemented and effective at the point of occupation of the development. They must also be secured for the duration of the development's effects (based on Natural England's published advice, generally taken to be 80 to 125 years).
- 5.3 Given the nature of the mitigation measures, a range are likely to be implemented outside of the city. However, where possible, the Council will encourage the implementation of measures within the city and/or measures which contribute to a range of benefits for the city's residents and environment (for example, water efficiency, biodiversity net gain, suitable alternative natural greenspace, and carbon reductions).

Nitrogen Credits

- 5.4 Developers can acquire sufficient nitrogen credits to mitigate their development. These credits can be purchased from landowners who have implemented measures which reduce the nitrogen discharge from their land. This will create a net neutral effect on the Solent international designations. These measures can include for example ceasing agricultural production on the land, or woodland planting / wetland creation. (They can also create wider environmental benefits, for example for biodiversity net gain, carbon reduction or the provision of suitable alternative natural greenspace).
- 5.5 To effectively mitigate the effects of development in Southampton, nitrogen credits must be purchased from schemes which:
- Provide mitigation within the River Test, River Itchen or Bartley Water catchments;
 - Will provide the necessary level of mitigation (following consideration of Natural England's advice); and
 - Provide the legal certainty that the mitigation will remain in place for the duration of the development's effects (generally 80 to 125 years) (see Implementation section below).
- 5.6 A list of currently available mitigation schemes is available on the PFSH website. [Potential mitigation schemes available to developers - Partnership for South Hampshire \(push.gov.uk\)](#) It is also anticipated that Defra will introduce a pilot trading scheme for nitrogen credits in 2022.

Off Site Water Efficiency Measures

- 5.7 The council can implement a number of measures to achieve nitrogen reduction itself. At present the council as a housing provider has an existing programme of retrofitting water efficiency measures in its own housing stock, for example through repairs and improvements. Although these measures are being carried out anyway regardless of the resulting nitrogen reduction, they are not being carried out in order to meet other Habitat Regulations obligations. Therefore, the council is considering whether future measures implemented under this existing programme can be taken into account as nitrogen mitigation in accordance with the approach set out below.
- 5.8 If they can be counted, the council will count them towards mitigating its own development schemes in the first instance. Water efficiency measures which are implemented from the date that implementation of this Position Statement commenced can be counted. This could build up a bank of nitrogen credits to be counted towards and used as mitigation for the council's future development schemes.
- 5.9 The council is also considering the expansion of its water efficiency programme (i.e. an additional programme) to be funded by developer contributions, which would provide the mitigation for those specified wider developments.
- 5.10 The Environment Agency consents for the Millbrook and Woolston waste water treatment works, which serve the majority of the city, have limits on the amount of nitrogen per water volume discharged (mg per litre). Therefore, where water efficiency measures are retrofitted to existing dwellings which are served by either of these waste water treatment works, the

reduction in waste water volume leads to a reduction in nitrogen discharged, and the measures can count as mitigation.

- 5.11 The Portswood waste water treatment works does not currently have a nitrogen limit and so water efficiency measures retrofitted to dwellings served by this works will not count as mitigation.
- 5.12 Based on the Council's current water efficiency programme, the retrofitting of showers and dual flush WCs in 2.1 existing applicable dwellings generates a sufficient reduction in waste water nitrogen discharges to support 1 new dwelling. This calculation is set out in Appendix 2. A future bank of nitrate credits will need to be calculated based on the specifics of future water efficiency programmes.
- 5.13 Retrofits in Council housing stock can be counted as mitigation as the Council can ensure the measures are retained in place.
- 5.14 Where housing associations are implementing the same measures, these may also be counted towards their own development schemes provided an appropriate legal agreement is in place to ensure that these measures are secured and retained in accordance with the principles in this position statement.

Other

- 5.15 The council may investigate the use of other potential mitigation measures within the city in due course. These may include for example measures to intercept nitrogen from run off / watercourses, the provision of wetlands, woodland, oyster beds, management of open space and public realm, water recycling, working with the Port, or on site waste water treatment works for very large developments (if these can achieve better nitrogen limits).

6. Implementation

- 6.1 The effect of the Habitat Regulation provisions in respect of nitrogen apply to any proposal that will result in a net gain of residential units (this includes dwellings, houses in multiple occupation [small and large], and residential institutions including student accommodation), or a net increase in hotel space. An appropriate assessment will be required for all planning applications (full, outline and reserved matters) and prior approvals, whether for new development or changes of use of existing buildings.
- 6.2 In-order to meet the requisite certainty required by the Habitat Regulations, the appropriate assessment must conclude that the mitigation measures will achieve nitrogen neutrality (taking account of Natural England's advice and this position statement), and any required mitigation measures must be:
 - Implemented and effective prior to the first occupation of the development;
 - Counted solely to that specific development (i.e. not double counted); and
 - Secured and monitored over the duration of the development's impact (generally taken to be 80 to 125 years).
- 6.3 In-order to achieve this certainty, the following approaches will be taken.

- 6.4 Where the mitigation measures are 'on site', or the measures are integral to the development scheme proposed, and the nitrogen budget has been calculated on this basis, planning conditions will be used to secure these measures. This will include:
- Water efficiency measures (the council will apply conditions to ensure water efficiency of 100 litres per person per day, consistent with Southern Water's 'Target 100' initiative. Adding the 10 litres per person per day precautionary buffer advised by Natural England means the calculator will be based on 110 litres per person per day); and
 - The quantity, type and management of open space provision.
- 6.5 Where the mitigation measures are secured from a 3rd party, for example the purchase of nitrogen credits from landowners, an appropriate legal agreement will be used, in conjunction with planning conditions where required. This will ensure the correct accounting of nitrogen credits to that scheme, the appropriate management and monitoring of the land for the requisite period, and the ability to enforce these provisions, to ensure they are secured over the duration of the development's impact. There is no farmland in the city and therefore another local planning authority will also be party to the legal agreement, in addition to Southampton City Council, the developer and the mitigation land provider. Legal agreements can be secured pursuant to section 33 of the Local Government (Miscellaneous Provisions) Act 1986 or section 106 of the Town and Country Planning Act 1990 depending on the nature of the mitigation and the location of any mitigation land.
- 6.6 Grampian conditions will be used where needed to ensure measures are secured prior to the first occupation of the development. Prior to the grant of planning permission, sufficient information will be required to ensure the measures will provide the necessary mitigation. At the discharge of the condition information will be required to confirm the implementation of the necessary mitigation. For larger development a phased approach to implementation can be taken. The measures required for each phase must be implemented prior to first occupation of that phase of development.
- 6.7 Where the measures are secured from the council rather than a 3rd party, for example by the retrofitting of water efficiency measures in the council's housing stock, appropriate evidence will be required. The council will set up a reporting system to ensure that sufficient applicable water efficiency measures have already been retrofitted prior to first occupation, are available (i.e. have not already been credited to another development), and are secured and monitored over the duration of the development's impact. This reporting system will inform the appropriate assessment for individual developments. The same approach will be taken for other public sector bodies such as housing associations (for which a legal agreement will also be required).

Appendix 1: Occupancy Rates

In-order to calculate the nitrogen discharges from waste water, the average water use per dwelling must be calculated. This depends on the number of people living in a dwelling (the occupancy rate).

Natural England's Advice recommends as a starting point using the national average occupancy rate established by data from the Office for National Statistics (ONS) of 2.4 people per dwelling.

However, Natural England's Advice confirms that Councils can use bespoke calculations for the occupancy rate, provided there is evidence to provide sufficient certainty.

The council's occupancy rate calculator employs a bespoke calculation based on the size of dwellings, which will better reflect the nature of a specific development. It is based on ONS Census data of dwelling occupancy rates in Southampton. (The 2011 Census is used and adjusted to the latest 2020 data. The 2021 Census results will shortly be available, and the calculation updated).

The council's calculation is set out as follows.

Table 1 sets out the 2011 Census data on household size by size of dwelling.

Table 1: Southampton: Household size by size of dwelling

	Dwelling Size					
	1 bedroom	2 bedrooms	3 bedrooms	4 bedrooms	5 or more bedrooms	Total
Household size						
1 person	14,690	9,672	7,363	963	553	33,241
2 people	4,702	11,607	12,183	2,034	503	31,029
3 people	834	4,431	7,421	1,532	420	14,638
4 people	221	2,239	6,298	2,387	560	11,705
5 people	42	586	2,298	1,067	853	4,846
6 or more people	39	121	943	693	999	2,795
Total	20,528	28,656	36,506	8,676	3,888	98,254

Source: 2011 Census

From Table 1, the occupancy rate (number of people per dwelling) can be calculated for different sizes of dwellings, as set out in Table 2.

On this basis, based on the 2011 Census, the average occupancy rate across all dwellings is 2.31. More recent 2020 population estimates suggest the occupancy rate could be between 2.35 and 2.42⁵. For now, a standard uplift proportional to the increase from 2.31 to Natural England's 2.4 occupancy rate (i.e. a 3.9% uplift) is applied. This is also set out in Table 2.

⁵ ONS Mid Year Estimate and HCC Small Area Population Forecasts respectively

Table 2: Southampton: Size of dwelling and Occupancy Rate

	Occupancy Rate (Average number of people in household)					
	1 bedroom	2 bedrooms	3 bedrooms	4 bedrooms	5 or more bedrooms	Average
2011 Census	1.36	2.05	2.64	3.30	3.94	2.31
Adjusted to 2020	1.41	2.13	2.74	3.43	4.09	2.40

The Adjusted Occupancy Rates are then applied to the council's occupancy rate calculator accordingly.

A council must apply a consistent approach within its area, either a 'flat rate' or a 'sliding scale'. In Southampton, the council has chosen a 'sliding scale'. This must be applied to all developments within Southampton to ensure that the effects of smaller and larger schemes balance out in a way which will not result in an adverse effect on European designations.

Highways and Water Pollution

At the inaugural meeting of the inquiry, it was identified that land based activities can influence water quality as runoff from buildings and roads, collected by surface water sewers and highway drains, is in some areas directed to watercourses. This can lead to an increase in oils, chemicals, salts and rubber/plastic particles as well as litter entering rivers and the sea. Where highway gullies are collected by a combined sewer system (one that carries both surface water and wastewater), the increase in surface water during heavy rainfall can reduce capacity for wastewater, adding pressure on combined sewer overflows.

Sustainable Drainage Systems (SuDS) that work with nature to slow the flow and recharge the ground at the point rain falls were identified as being effective at reducing the number of combined sewer overflows and, alongside oil interceptors in high risk areas, were capable of supporting improving the quality of highway runoff, and reducing the volumes of water arriving into sewers, reducing capacity issues during heavy rainfall

In recognition that pollution via highways was likely to be raised at the 17 November meeting when water quality was being discussed, the Scrutiny Manager asked officers to provide the Panel with information outlining any steps the City Council and our partner Balfour Beatty Living Places (BBLP) are considering, or taking, to reduce pollution into the River Itchen or connected watercourses via our highway network.

Summary of response from Colin Perris, Service Manager – Highways Contracts

The general point is that it's very much business as usual for all highways gullies to trap silts, but they don't have oil intercepting specifications, unless retrofitted or designed-in as part of new works / investment.

The Council does not have a budget allocated to specifically retrofit to oil intercepting specifications. The priority currently is to invest in the general improvements to highways drainage to address surface water flooding and will also react to wildlife or other legislation or complaints that require amendments on an ad-hoc basis.

The Council has not recently recommended oil interceptor measures to be put in place but would always do so if the need arises. Asset inventory information from BBLP's drainage sub-contractor should identify oil interceptor or other measures in existence on the existing public highway, but they are minimal.

It is recognised that well-designed SuDS such as balancing ponds, filter strips and swales could help improve the quality of water arriving at waterbodies but there is no dedicated highways SUDS rollout or budget specified at present.

There is nothing to stop the Council, resources aside, considering an approach or policy of setting a target of 'x' number of highways maintenance schemes per year that introduce SUDs, even if only in a very small sense of kerb build-outs housing more vegetation / trees and having adjoining gullies that divert highway run-off through a surface filter into a sub-surface crate or soakaway.

Buckinghamshire Case Study

Whilst researching the issue of water pollution from highways I was directed to a recently published scrutiny inquiry undertaken by Buckinghamshire Council titled 'Pollution in Buckinghamshire's Rivers and Chalk Streams'.

Amongst the detailed report the review included the following extract and recommendation

Water Pollutants & Run-off

- The urban and transport sector accounts for 19% of the poor river water quality in the Thames River Basin.
- Road gullies are designed to divert surface water run-off from highways and divert it into the surface water drainage network. The gullies include gully pots which trap solids to reduce contaminated sediment from entering watercourses.
- It was reported that diffuse urban pollution is a significant issue for most of the chalk streams in Buckinghamshire due to surface water from road run-off carrying pollutants directly into watercourses. These pollutants include decomposing plant and animal matter (humus) and by-products from vehicles such as hydrocarbons, oil, brake dust, tyre fragments, hydraulic fluids, and anti-freeze.
- The inquiry group heard of instances where technology can be utilised in gullies to remove further pollutants from flowing surface water. One example is an adaptor that fits into standard road gullies and skims surface water to remove contamination without impacting flow or silt maintenance procedures. The waste it collects can then be recycled. This type of product could potentially remove 95% of oil and pollutants that enter the gully if regularly maintained and replaced when necessary.

Recommendation 1 - The Cabinet Member for Transport should investigate the use of new and practical gully technology with the intention of reducing harmful chemicals from the highways entering the watercourse.

The full report is available here - [TECC Rivers Report.pdf \(moderngov.co.uk\)](https://www.moderngov.co.uk/TECC-Rivers-Report.pdf)

Marinas and the river environment

At the inaugural meeting of the inquiry Dr Rumble from Wessex Rivers Trust outlined a number of sources of pollution impacting on water quality within the River Itchen. This included pollution from marinas and related activity.

In expectation that this would be raised at the 17 November meeting the Scrutiny Manager contacted MDL Marinas, who manage 19 marinas, including Saxon Wharf, Shamrock Quay and Ocean Village Marina on the River Itchen, to develop the Panel's understanding of actions that are being taken to reduce the impact of marinas on the environment.

The following information was provided by Tim Mayer, MDL Marinas Sales and Marketing Director:

Clean before you leave campaign

This is a very simple campaign across the marinas and boatyards to reduce the volume of non-native species invading the river or other local waterways. If you go to any of the marinas on the Itchen you will see the campaign posters.

Water Filtration systems

We've installed filtration systems to clean wastewater from boatyard activities, improving local water quality. Currently these are installed at Cobbs Quay, Northney, Shamrock Quay, Hamble point and Dartside Quay. These will continue to roll out through the estate.

Zero waste to landfill

We've full recycling and waste management facilities at all our marinas, including hazardous waste where we have a 100% zero waste to landfill policy. We're increasing the amount and type of waste we can recycle, from food to ferrous metals, which will then be transformed into new products or used to generate electricity. We implement environmental audits and checks on a periodic basis ensuring less waste is hitting the river. We're playing our part in helping to

Help stop the spread of Invasive Marine Species

CLEAN BEFORE YOU LEAVE

In Great Britain there are approximately 2,000 non-native species, about 300 of these are invasive.

While the majority of non-native species pose little or no risk, some can significantly impact our native biodiversity through competition and disease and cause damage to boats, fouling hard surfaces such as hulls and clogging up boat engines and props.

A few easy steps can prevent the spread of invasive species:

- CLEAN** off aquatic plants and animals from your boat, anchor and equipment before leaving the area
- LEARN** to identify common invasive species and report them to the marina office

Common invading species to look out for:

- Tufty-buff Bryozoan
- Trumpet Tube Worm
- Carpet Sea Squirt
- Tubeworm

DID YOU KNOW? An estimated 7,000 species are carried around the world in ballast water every day! Can you help reduce this number?

Cleaning your boat regularly will help stop the spread! Speak to one of the MDL team to find out more about how to clean your boat properly. Thank you for protecting our waters.

MDL MARINAS mdlmarinas.co.uk/greener-marinas

reduce plastic and waste emanating from our marinas through education, and the continued provision of secure waste and recycling receptacles

Native Oyster Restoration

We're helping replenish the Solent's oyster population by supporting the Blue Marine Foundation's (BLUE) innovative conservation project, bringing employment opportunities and creating cleaner waters for cruising on the Solent. BLUE is a charity dedicated to restoring the ocean to health by addressing overfishing, one of the world's biggest environmental problems. Their vision is a healthy ocean forever, for everyone. We have cages installed across the Hamble River and at Shamrock Quay in the Itchen.

Beneficial Disposal of Dredge Material

As with many marinas globally, our marinas are subject to ongoing siltation and require regular dredging to maintain water depths. We're working with harbour authorities and councils local to our marinas to redistribute the dredge from our sites, helping to build mudflat levels where needed, encouraging saltmarshes to re-establish, and increasing flora and fauna.

Green Tech Boat Show

Returning for a third year, The Green Tech Boat Show will be moving to Ocean Village Marina April 21st – 23rd 2023. The show is specifically designed for boat owners wishing to make the switch to greener options, and prospective owners who'd like to start their boating journey in the most environmentally friendly way possible. The event presents information in a practical way, showcased next to other green technologies. This will allow consumers to understand what the total offering could be, and how they can help the environment by investing in green technology today.

Future Research – Drive in Boat Wash

As you will know leaching from the anti-fouling paints used to prevent the build-up of micro-organisms, algae or plants (known as biofouling) on boat hulls can have negative consequences for marine habitats and is a source of water pollution. We are currently researching methods of efficient antifouling without biocides but also systems that remove the need for antifoul all together. One of these methods is drive in boat washes. These machines are designed to stop using copper based and other harmful antifouling paint all together. The concept is to get boaters to convert away from paint. To give this a realistic chance we need to let boaters clean their boats for a time period before they are required to remove their old paint. For 30 days, one boat, by just sitting in the river can release $30 \times 1.44 = 43.2$ g/copper. That is equivalent to per year 0.525 kg copper (365 days \times 1.44) per boat (if the boat hull is 36 m²). We are hoping to work with local authorities to find suitable locations to locate the (to my knowledge) UK's first Drive in Boat wash.

This is not the extent of MDL Marinas activity to support the environment but provides an overview of a number of key initiatives.