

Item

Designated Bathing Water – River Cam



To:

Councillor Sam Carling, Executive Councillor for Open Spaces and City Services

Environment and Community Scrutiny Committee

Report by:

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Wards affected:

Newnham

Key Decision

1. Executive Summary

- 1.1 The River Cam (River) is used for swimming and with this use, there are a range of issues presented and raised. This report considers these issues, the water quality concerns, the impact on human health from that water quality and a range of other considerations that must be understood to allow the City Council (as landowner) to consider and support a Designated Bathing Water (BDW) for Sheep's Green.
- 1.2 The Council on the 20th July 2023 considered a Motion¹ proposed by Councillor Thornburrow and seconded by Councillor Holloway titled Stop Dumping Sewage in our River and Chalk Streams. This motion was approved after amendment and is set out in full at Appendix A. This report is in response to this motion.
- 1.3 The 2023 motion follows a previous decision by Council on the 21st July

¹ 23/45/CNL Full Council 20th July 2023

2022.² This previous decision recognised the challenges facing rivers and streams due to sewage discharge, and noted a requirement to engage with the Environment Agency (EA) to reduce discharge. A full record of this motion is available as a background paper to this report or available online on the Council's website.

1.4 The 2023 motion debate prompted eight public questions at the Council meeting with a range of topics, benefits and concerns raised in respect of:

- Impact on wildlife and ecology
- The funding model for new sewage infrastructure
- Health and Safety
- Understanding of current use
- Spend requirements to make facilities (new and existing) safe and usable
- The impact of additional use and forecasted pressure for facilities to support a Designated Bathing Area³.

1.5 This report responds to some of these items and to a range of other matters that have to be considered to allow the Council to support a formal application by Cam Valley Forum to the Department for Environment, Food and Rural Affairs (DEFRA) for an inland water stretch along the river to be designated as a bathing water site.

1.6 The decision process and requirements to support a designated bathing water (DBW) application are set out in the 2023 motion with a full report to be considered at the Environment & Community Scrutiny Committee to help inform a decision by the Executive Councillor for Open Space and City Services.

² 22/31/CNLd Full Council 21sy July 2022

³ A proposed designated bathing water must:

- be a coastal or inland water.
- have at least 100 bathers a day during the bathing season (15 May to 30 September)
- have toilet facilities bathers can use during the bathing season, within a short distance of up to about 500m from the site.

2. Recommendations

2.1 The Executive Councillor is recommended to:

- a) Support the Cam Valley Forum application for a Designated Bathing Area to the Department for Environment, Food and Rural Affairs for an inland water stretch along the River Cam, within Cambridge City Council boundaries, to be designated as a bathing water site.

3. Background

- 3.1 The Rivers Trust report titled State of our Rivers details that England's rivers, includes 85% of the world's precious chalk streams, yet only 14% are in good ecological health within the Water Framework Directive⁴. Our river is part of this network, and the difficulties it is currently experiencing are widely reported, with two recent Council motions.
- 3.2 Of these failing rivers, agriculture impacts nearly two thirds (2,296 river water bodies); the water sector impacts over a half (2,032 river water bodies) and the urban and transport sector a quarter. Pollution is not the only problem though, as abstraction and habitat destruction also put the future of rivers in jeopardy⁵. These are all relevant in our considerations for the river, and a DBW area.
- 3.3 Swimming in rivers and lakes used to be a popular public pastime before the arrival of public swimming pools in the 1960s (swimming at Sheep's Green was supervised when it was permitted). Around this period, swimming in the river at Sheep's Green also ended with the activity transferred to the open-air pool at Jesus Green. A learner pool⁶ continues to be provided at Sheep's Green and is made available through the summer. It is worthy of note in the historic image on the next page that there are no lifeguards in sight and the image demonstrates the change in regulations over the years from these nostalgic memories to the practical

⁴ The Water Framework Directive is a European directive that monitors waterbodies for a range of issues, including pollution from chemicals and excess nutrients, as well as the health of wildlife communities such as plants and fish. Rivers are then rated as high, good, moderate, poor or bad status. Only the rivers that are described as 'good' or 'high' are in a sustainable and healthy condition; the rest all need a greater level of protection and management if they are to improve to a good level of health.

⁵ <https://theriverstrust.org/key-issues/state-of-our-rivers>

⁶ https://sheepsgreen.wordpress.com/home/about_the_pool/

applications required today. Notably only 5 people are in the water and over 75 are sunbathing.



Image 1 – Historical photo of Sheep's Green Leaner Pool and River Swimming

- 3.4 Swimming in rivers and lakes is sometimes described as 'wild swimming' because it usually takes place outdoors in remote or natural locations, away from supervised and managed swimming pools. However, the name could also refer to the seemingly dangerous nature of the sport, as 'wild swimmers' choose to contend with the many hazards of inland waters.
- 3.5 Staffed provision for outdoor cold-water swimming is also provided around the city and outskirts for sites such as Milton Country Park, and Jesus Green Lido, both with potential to expand provision and access to their facilities in the future.
- 3.6 Consultation conducted by the Cam Valley Forum to support their application to DEFRA for a DBW has highlighted the level of existing interest in swimming in the River. Over 500 people responded with 93% supporting an application, 6% against and 1% unsure.
- 3.7 The research also demonstrated that the DEFRA threshold of 100 bathers using a site, during a 4-hour period on the 2 busiest days of the year, has been met. The two top counts are the 10th August and 9th September with an average 3 times the required 100.

3.8 The levels of interest of wild swimming, the subsequent use of the river, and water quality are significant factors in the considerations given in this report when forming a balanced recommendation for the Executive Councillor on whether or not to support a DBW application. The following sections cover a wide range of issues.

4 River swimming

4.1 There are a range of swimming related health, safety, risk, and dangers with swimming in the river. These are identified as:

- a) Not being able to swim
- b) Cold water and hypothermia
- c) Cold shock response
- d) Slips and trips
- e) Jumping and diving
- f) Cramps and solo swimming
- g) Entanglement in weeds
- h) Blue-green algae
- i) Swimmer's itch (Cercarial dermatitis)
- j) Weil's disease
- k) Water Quality / pollution
- l) Water Clarity
- m) Other users – Tourist punts and canoes
- n) Lack of control of activities being undertaken (jumping off bridges, bombing passing punts, canoes)
- o) Lack of safe egress/access points other than by the canoe clubhouse steps.
- p) Steep, slippery, and unstable riverbanks elsewhere
- q) No rescue aid provision (lifebuoys, throwing rope, reaching aids)
- r) No trained lifeguard provision
- s) Lack of direct access to river frontage for emergency response vehicles.

4.2 There are also a range of health benefits both physical and mental. This list is from the Rivers Trust website:

- a) Cold water can decrease your heart rate and reduce blood pressure
- b) One study suggested that cold water could produce an anti-depressive effect⁷

⁷ <https://pubmed.ncbi.nlm.nih.gov/17993252/>

- c) Cold water can decrease levels of the stress hormone cortisol while boosting levels of dopamine and serotonin, two hormones linked to a positive mental state
- d) Wild swimming allows you to connect with nature and clear your mind
- e) Physical exercise in any form has fantastic health benefits – both physical and mental
- f) Getting out of the house can help you to make new friends, building up a vitally important support network

4.3 The proposed Designated Bathing Water (Appendix B) is a stretch of the river that is currently heavily used by canoes (from the Canoe Club on Sheep's Green) and self-hired punts for those wishing to access Grantchester. These hire boats usually have novice punters which could be put in stressful scenarios where they pass through an area of water designated for bathing. This would need careful thought to avoid risks and potential conflicts as punts and swimmers meet whilst competing for use of the river. Scudamore's have written a letter of support for the Cam Valley Forum's application.

4.4 There are a range of controls to help manage most risks in relation to these items set out in 4.1, some physical, some advisory and many that can be addressed by the City Council. There are however risks that are very difficult to mitigate especially where the City Council cannot exert direct control such as those related to health risks from infections, disease, and exposure to pollutants whilst swimming in the river. This is covered in section 5 of this report.

4.5 Other Councils that have a DBW such as South Oxfordshire District Council have chosen to provide advisory signs and make wild swimmers aware of the water quality, this text is supplied by the Environment Agency. The DBW application also creates a collaborative relationship with the Environment Agency in helping to understand improve water quality and its reporting.

5. Water Quality

- 5.1 The Government issued advice in June 2019⁸ in relation to health which states that *“Open water swimming can increase the risk of gastrointestinal illnesses, or stomach bugs, which may cause diarrhoea and/or vomiting, as well as respiratory, skin, ear, and eye infections. Most symptoms of these illnesses caused by micro-organisms such as norovirus, giardia, and cryptosporidium, will generally be mild. However, there is also a risk of more severe infections caused by micro-organisms such as E.coli O157 which may cause severe gastrointestinal illness and leptospirosis (Weil’s disease), which can cause liver and kidney problems.”*
- 5.2 There are significant health risks - swimmers can become unwell from swimming in any open water as there will always be micro-organisms present. The risk of becoming ill increases with factors such the following:
- a) Children and novice swimmers are more likely to swallow water accidentally
 - b) Those with an impaired immune system are more susceptible to infection
 - c) Those swimming in rivers and estuaries are more likely to become unwell
 - d) Heavy rainfall can wash harmful bacteria from agricultural land, urban areas and sewage to rivers, seas and bathing waters and affect water quality
 - e) Along with lack of clarity, issues that can lead to physical harm when the water is disturbed and could disguise harmful objects that may be unseen in the water.
- 5.3 The consultation by Cam Valley Forum has indicated that there are large numbers of swimmers already using the water and they are therefore currently being exposed to these risks.
- 5.4 The Environment Agency (EA) has a web resource relating to water quality⁹. It sets out the issues preventing waters reaching good status and the sectors identified as contributing to them.

⁸ <https://www.gov.uk/government/publications/swim-healthy-leaflet/swim-healthy>

⁹ <https://environment.data.gov.uk/catchment-planning/RiverBasinDistrict/5>

- 5.5 The EA has advised that it *'must remain neutral on the designation of rivers for bathing as it is for Department of Environment, Food & Rural Affairs (DEFRA) to make the decisions.'* However, their general policy is to advise against swimming in rivers on health & safety grounds. The bacterial quality of rivers is only rarely acceptable due to sewage and agricultural discharges. The EA also raised concerns about currents and unseen underwater obstructions. The following link provides some useful information: <https://www.gov.uk/government/publications/swim-healthy-leaflet/swim-healthy>
- 5.6 If Sheep's Green is designated, the EA will develop a bathing water profile and put plans in place to monitor and protect the bathing water. By law, the City Council must display information about water quality and pollution sources at designated bathing waters during the bathing season (15 May to 30 September). The EA will provide the text for the Council's public information sign.

6. Designation of bathing waters

- 6.1 The DEFRA bathing water designation requires the applicant to have completed user surveys, provide information about any facilities at the site and evidence of consultation. User surveys must be carried out during 15th May and 30th September and cover a minimum of 20 days including 10 weekend or bank holiday days.
- 6.2 Any application should be supported with information about any facilities, and the DEFRA website¹⁰ lists the following which should be easily of access to the site:
- Public toilets
 - Changing facilities
 - Parking or public transport
 - Lifeguards including riverside lifesaving aids
 - First aid service
 - Cafes, shop, or kiosks.
- 6.3 There is also a requirement to evidence consultation with local groups that may be affected by a bathing waters designation.

¹⁰ <https://www.gov.uk/guidance/bathing-waters-apply-for-designation-or-de-designation>

- 6.4 The Cam Valley have completed their application, and this has been shared with the Council. The consultation results and letters of support from South Cambridgeshire District Council, the Cam Conservators and Scudamore's have also been shared with the City Council.
- 6.5 Officers are confident that the application would meet the criteria for consideration as designated bathing water. The river is an inland body of water, there is evidence that at least 100 bathers a day during the bathing season and that there are toilet facilities within 500 metres of the DBW.

7. Risk from drowning

- 7.1 On September 19th, 2013, an accident resulted in the drowning of a 12-year-old boy who entered the river at Sheep's Green, with friends, and then got into difficulty. The coroner's inquest concluded that his death was accidental.
- 7.2 About 400 people drown every year in the UK¹¹, but only a tiny percentage of these drown while outdoor swimming. An analysis of recent annual accident data shows that of the 12 per cent of drowning victims who died while swimming, 7 people drowned in swimming pools, 11 in the sea, tidal pools and estuaries, and 7 in rivers, lakes, reservoirs or canals. In addition, there were 8 who died swimming drunk, 30 who died through 'jumping in' to water and 17 who died in 'jumping and diving accidents. 95 per cent of all swimming drowning victims were male and many were teenagers.
- 7.3 This evidence must be considered in the context of the number of swims. If the number of swimmers in the area were to increase, the likelihood of danger would increase also and therefore greater prevention and safety measures would be required.
- 7.4 The Council can make use of the Wild Swimming Code as used by other DBW landowners to highlight risks such as this one by the Oxford Water Safety Group.

¹¹ Royal Society for Protection of Accidents 2002 data; River and Lake Swimming Association; Jean Perraton in Swimming Against the Stream



Image 2 – Wild Swimming Code by Oxford Water Safety Group

8. Liabilities

- 8.1 The City Council has a range of statutory responsibilities most notable those relating to the Occupiers Liability Acts for 1957 and 1984. The 1984 Act extends the common duty of care to trespassers as well as visitors, providing that this duty is to be required when the occupier has actual or constructive knowledge that a danger exists and that a trespasser is or may be near it. A range of risks are set out in 4.1.
- 8.2 A change in position/policy which would create a DBW would mean that the Council has knowledge of danger and therefore we must complete a full risk assessment.
- 8.3 Advice from other Councils is that rescue equipment should play only a minor role in a water safety strategy, with greater emphasis on prevention.
- 8.4 The Council may need to invest in a new inspection system in terms of identifying and reducing the number of potential risks. These systems are of great importance in the prevention of accidents and the defence of public liability claims. The Council may need to make budget provision for the

supply and regular replacement of rescue aids to also be held in stock for immediate replacement.

9. Conservators of the River Cam position

- 9.1 The Conservators of the River Cam have interestingly recently designated the upper reaches of the River Cam as suitable for swimming. Specifically, between Byron's Pool and King's Mill Weir¹². The Conservators of the River Cam have written a letter of support the Cam Valley Forum's application for Sheep's Green.
- 9.2 It should be noted that the Conservators of the River Cam are a navigation authority for the River Cam downstream from Bishops Mill. The Conservators have byelaws that that prohibit swimming as follows.

No person while using or while in, upon or about the River, including for the purpose of this Byelaw the upper part of the River, that is to say so much of the River Granta as lies between King's Mill and Newnham Mill on the East or North East, and Byron's Pool and Grantchester Mill on the West or South West, together with the backwaters connected therewith, shall do or incite any other person to do any of the acts specified in the following sub-sections of this Byelaw:-

(1) jump into the River or on to any vessel on the River from any place including a bridge or a highway or dive or swim or bathe in the River in such a manner as to cause obstruction, nuisance, annoyance or risk of danger or injury to persons or property.

(2) bathe or swim within 36 metres upstream or downstream of any lock, sluice, weir, or water intake, or in any lock pen.

(3) Bathe between the hours of eight in the morning and nine in the evening during the months of June, July, and August or during the remaining months in the year between the hours of eight in the morning and eight in the evening except at bathing places authorised by the Conservators.

¹² <https://www.camconservancy.org/swimming>

(4) Bathe at any place where or between any hours when bathing is for the time being prohibited by the Conservators.

10. Relationship with Sheep's Green Learner Pool

- 10.1 The Sheep's Green Learner Pool should not be relied upon as supporting a DBW without a careful consideration with the operator Greenwich Leisure Limited (GLL) (contracted until March 2026) and with mutual agreement on a business case that will support the medium-term investment needs from a DBW may require.
- 10.2 Sheep's Green Pool currently operates for only 14 weeks of the year (late May bank holiday to 2nd weekend of September) and is staffed from 10:00 – 18:00 during the six-week school holiday period and in the afternoon from 3:30pm for the remaining weeks, so may provide sufficient staff presence or resources for riverside equipment checks without significant increases in staff time and costs being required.

11. Impact on Nature and Wildlife

- 11.1 The impact on nature and biodiversity has been raised by a range of stakeholders. These relate to the loss of habitats and impact on wildlife in this area. These are real concerns and will incrementally impact, based on the number of users of the area designated for bathing and the pressures they bear on wildlife. The historical area used for swimming has engineered banks and these by their nature have very limited scope to support habitats. The impact on nature could be mitigated by limiting or constraining the area designated for swimming.
- 11.2 The River Cam is a non-statutory County Wildlife Site in recognition of the value of the river habitats and corridor, the proposed DBW includes some of Sheep's Green & Coe Fen Local Nature Reserve (LNR) and is adjacent to Paradise LNR which are both statutory designations. The upper reaches of the restored 'Rush' watercourse and fish pass have been included as part of the area for assessing number of users entering the water. Whilst this feature has been designed for access by families to experience flowing water and associated wildlife it has not been configured for swimming and has the potential to be damaged and disturbed by additional unmitigated recreational access.

- 11.3 The Snobs Stream area has previously supported swimming from ~1930 until ~1970, however the area is now a habitat that supports a range of wildlife, notably water voles. This area does not form part of the proposed application for the DBW.
- 11.4 There are several bank side veteran willows which require pollarding, as identified in the recent veteran willow survey. These would require work before swimming in the immediate area. Underwater obstructions such as tree roots and sunken branches that could be dangerous to swimmers also provide important habitat and refuge for fish and other species and so any removal should be limited.
- 11.5 If many swimmers were attracted then impacts to the wider Sheep Green Local Nature Reserve might include damage of grassland and increased litter with potential danger or disturbance to summer grazing livestock.
- 11.6 DEFRA will hold a public consultation on all applications that meet the criteria and evidence requirements for bathing water designation. They will also work with Natural England to ensure designating the site as a bathing water is compatible with protections in place under the:
- Wildlife and Countryside Act 1981 (as amended)
 - Conservation of Habitats and Species Regulations 2017 (as amended)

12. Conclusion

- 12.1 There are a range of manageable risks and issues presented by this DBW proposal some of which will require long term commitment from the Council. There is considerable merit in supporting an initiative that will improve water quality in the river.
- 12.2 It is known and evidenced that the river is used for swimming and with that use, a range of current issues are presented and raised. A DBW application and the collaborative efforts of a range of stakeholders will consider these issues, the water quality concerns, the impact on human health from that water quality, and a range of other considerations that must be understood to allow the bathing water designation for Sheep's Green.

- 12.3 There is merit in looking to designate other parts of the river as bathing places where this contributes to a broader aspiration to increase water quality, and where the potential environmental impact can be managed.
- 12.5 In the interests of collecting a range of views, the Council with Cam Valley Forum should open a dialogue with the Cam Safer Swim Steering Group to determine what levels of resource they can commit to achieve the requirements of a DEFRA designation application.
- 12.6 As part of any DEFRA consultation the Council should ensure that a complete habitat and wildlife impact survey is undertaken to understand the impact of any designation, and this is because aquatic invertebrate surveys of the Rush¹³ post enhancement have demonstrated that despite significant improvement in habitat structure and water flow the invertebrate communities continue to reflect poor water quality entering the system.

13 Implications

a) Financial Implications

There are limited low value future capital financial implications relating to adaptations and changes to the riverbanks, and revenue implications in response to and manage the activities of swimming in the river.

b) Staffing Implications

None identified.

c) Equality and Poverty Implications

An EQIA was completed to support this report and it has been identified that there may be a negative impact on those with limited mobility wishing to access the river. This relates to the physical constraints of the engineered banks. This matter must be a consideration in any assessment of the current and future use.

The EQIA also considered the DBW and the improved water quality will benefit all users of the River. The positive benefits from the creation of safer area for River swimming will create new recreational activities for

¹³ An area of rapid water between the Upper River and the stream that flows through Sheep's Green towards Coe Fen and the Mill Pond.

those on low income. The recreational activities will also create potential health benefits over time.

d) Net Zero Carbon, Climate Change and Environmental Implications

A climate change rating has been completed for this report, and the rating is low positive. The rating tool identified low positive impact for water availability and flooding and a low negative impact on biodiversity.

e) Procurement Implications

None identified.

f) Community Safety Implications

None identified.

14 Consultation and communication considerations

DEFRA will hold a public consultation on all applications that meet the criteria and evidence requirements for bathing water designation.

DEFRA will invite the following stakeholders to respond to the consultation:

- The water company for the area
- British Long Distance Swimming Association
- Consumer Council for Water
- Country Land and Business Association
- Marine Conservation Society
- National Farmers Union
- Outdoor Swimming Society
- River and Lake Swimming Association
- Swim England
- UK Beach Management Forum
- Visit England

DEFRA will work with Natural England to ensure designating the site as a bathing water is compatible with protections in place under the:

- Wildlife and Countryside Act 1981 (as amended)
- Marine and Coastal Access Act 2009 (as amended)
- Conservation of Habitats and Species Regulations 2017 (as amended)

15 Background papers

22/31/CNLd Motion by Councillor Copley – Rivers, Safe Swimming and Sewage. Council 21st July 2022.

Conservators of the River Cam Byelaws 1996

16 Appendices

Appendix A – Council agreed Motion.

Appendix B – Designated Bating Water application area

17 Inspection of papers

If you have a query on the report please contact Alistair Wilson, Group Service Manager,

email: alistair.wilson@cambridge.gov.uk

Appendix A – Approved Council Motion

This Council notes that:

On 21st July 2022, a motion was passed by the Council regarding Rivers, Safe Swimming and Sewage, which recognised the cumulative impact of sewage discharge events.

The responsible bodies are the Environment Agency for general oversight, Cambridge Water for water supply, and Anglian Water for sewage. Despite members highlighting the issues in this Council, and engaging with the Environment Agency and Anglian Water, recent evidence shows that pollution levels in our rivers and chalk streams remain unacceptable.

Many residents and local organisations have rightly raised concerns about the health implications of the poor water quality in our rivers and chalk streams, especially during summer months when local children and families would expect to be able to bathe and enjoy nature-rich riverbanks. Cam Valley Forum have undertaken water quality tests for the year 2021 to 2022, and Anglian Water continue to take weekly tests. All show poor water quality.

On 22nd September 2022, South Cambridgeshire District Council agreed a motion calling for measures to stop water companies dumping raw sewage in our chalk streams and had begun working towards a formal application to Department for Environment, Food & Rural Affairs for an inland bathing water stretch within their district under the Bathing Water Directive (2006/7/EC).

A designation as a bathing water site from the Department for Environment, Food & Rural Affairs imposes a legal obligation on Anglian Water to reduce sewage pollution in the area concerned until the level 'good' or 'excellent' is reached; requires the Environment Agency to test the water regularly during the bathing season in order to produce an annual classification as "excellent", "good", "sufficient" or "poor"; requires the local council and agencies to publish the annual water quality classification; and can help residents enjoy the benefits of wild swimming, reducing stress, and improving wellbeing, fitness

and contact with nature.

Therefore, this Council calls on everyone to engage with the River Cam and its associated chalk streams and tributaries with respect, accepting our stewardship of this vital natural resource, and asks all residents and

organisations of Cambridge to act as guardians of the river and be mindful of the impact of our own actions and those of others that threaten its health and survival.

Furthermore, in order to reduce threats to the River Cam and its tributaries caused by pollution and over-abstraction, this Council:

- agrees to evaluate the potential of a formal application to Defra for an inland water stretch along the River Cam within Cambridge City Council boundaries to be designated as a bathing site, working with Anglian Water and local partners such as Cam Valley Forum, in order to secure an improvement in water quality while also taking into account the impact of any increased usage and avoidance of significant additional cost; and requests a report on this to the Environment & Community Scrutiny Committee to inform a balanced decision by the Executive Councillor.*
- asks the Chief Executive to send a formal letter to the Environment Agency, Cambridge Water, and Anglian Water expressing its concerns over the state of the River Cam and associated chalk streams and other tributaries, and calling for their assistance in improving water quality and reducing pollution;*
- will continue to consider the impact of the emerging Local Plan on the water environment through the cross-party, cross-boundary Shared Planning Local Plan Advisory Group, and the cross-party Cambridge City Planning and Transport Scrutiny Committee.*
- affirms the goal, agreed by the Greater Cambridge Shared Planning Service, of having the water management plan for our chalk streams based on being an ‘environmental destination’ with subsequent protection as sites of Special Scientific Interest (SSSI), rather than ‘business as usual plus.’*
- will provide public access to the full response of Greater Cambridge Shared Planning to the Cambridge Water, Water Resources Management Plan (WRMP) consultation.*

Appendix B – Designated Bating Water application area

