Stroud District Council
Planning Policy
Ebley Mill Ebley Wharf
Stroud
Gloucestershire
GL5 4UB

Our ref: [redacted]

Your ref:

Date: 27 May 2022

Dear Madam/Sir

PROPOSED CANAL STRATEGY FOR STROUD DISTRICT

Thank you for consulting us on the Proposed Canal Strategy for Stroud District. We have the following comments for your consideration at this time:

BACKGROUND:
This is the first time we have been able to comment upon the Strategy. We are aware that a previous initial consultation was circulated but we were unable to comment at that time unfortunately, nor attend the stakeholder workshop. We are not aware of any subsequent engagement or discussion since then, other than this consultation opportunity.

It would be helpful going forwards to engage more closely on this matter, especially given the importance of the water environment to this SPD. We are mindful that water resources may be a significant constraint to the ambitions of the Strategy, and there are potentially other conflicting pros and cons environmentally that may require further consideration prior to finalising the SPD.

Our understanding is that the proposal is for the Strategy to become a Supplementary Planning Document (SPD), so essentially becoming local planning policy. This seems appropriate in order to assist the delivery of Local Plan policy ES11 in both the adopted and emerging Local Plans. However, as set out in this letter, there are aspects of the strategy we would seek amendments to prior to its adoption.

CONSULTATION QUESTIONS:
With this type of strategic planning consultation our focus is on whether the environmental matters within our remit have been appropriately included and considered. We do not generally make comments on the spatial strategy beyond these environmental considerations, and as such we do not necessarily have specific answers to the questions posed. That said our comments below do touch on the consultation questions in certain areas (such as where we have commented upon some of the 14 identified canal strategy areas (Q2) and the ‘ingredients’ (Q4), which we have interpreted as environmental, social and economic themes). We have not therefore set out our response under these question headings. We would nevertheless wish to state at the outset that it is clear that you have undertaken a thoughtful and positive approach to placemaking in how the strategy has been put together. We very much welcome the strong theme of climate change throughout the strategy and the fact that climate change mitigation and adaptation are central themes (e.g. the inclusion of sustainable transport, carbon reduction and sequestration, waste and resources, energy use and provision of renewables including retrofitting). We fully support these. It reflects the focus of the Stroud Local Plan Review, and the Council’s commitment, of delivering carbon neutral development by 2030.

EVIDENCE BASE:
The 'Evidencing the Strategy' document does not include or refer to the type of technical evidence base documents we would normally expect to see supporting a spatial strategy, such as a Local Plan. Whilst noting this is an SPD, we nevertheless seek clarity on where evidence base documents such as Strategic Flood Risk Assessments (SFRAs), Water Cycle Studies (WCSs) and Infrastructure Delivery Plans (IDPs) feed into this strategy / how they relate to it.

The documents listed on p7 of the 'Evidencing the Strategy' PDF do include some relevant background/evidence documents that touch on environmental matters in our remit (such as G1 'The Values & Benefits of Waterways', G2 'Building with Nature', R2 'Gloucestershire's Nature Recovery Network and natural capital maps', R4 'Gloucestershire's Sustainable Energy Strategy' and D8 'Gloucestershire Wildlife Trust's Conservation reports for the corridor'). It would be useful to understand whether you have also considered other documents/strategies/legislation such as the Government's 25 Year Environment Plan, the Environment Act, the Water Framework Directive (WFD), the Flood & Water Management Act, River Basin Management Plans, Flood Risk Management Plans, and Gloucestershire's Minerals and Waste Plans.

The Environment Agency has not been included in the Stakeholder List. This may be as we have not been able to comment prior to this consultation, however we should be included as a consultee / stakeholder.

WATER RESOURCES:
We have some concerns over various aspects of water resources. Potentially, one of the biggest challenges for the canals will be water availability and quality. Our comments are set out below under different themes as follows: availability of water; regional water resources and water transfer; serious water stress; water quality. The theme of water resources is also re-visited in the Biodiversity section of this letter.

Availability of Water
The Strategy is advocating restoration of the upper canal reaches. There are significant water resource implications in that area. This could be a significant obstacle in supporting such a plan given the impacts on water resources in the system more widely.

We have discussed the Strategy at our internal Severn Vale Catchment Forum recently. Officers raised some concerns over the water supply aspects:

- Essentially, the more popular it is for navigation, the more water it will need at the top of the catchment.
- How it links up with/forms part of the thinking around the Severn / Thames Water Transfer Scheme options (see comments below)
- Issues with damage to protected sites and restoring connectivity which could have negative impacts for the local crayfish population, and other species

The biodiversity value of the upper derelict reaches is significant. We have concerns that there is not enough water to support the canal and the river. There will also be water resources issues with canal abstraction further downstream.

It would be helpful to understand what work has been done, both recently and historically, to consider the demands on water resources that the Strategy would make, whether this has been quantified, and whether ultimately there is sufficient water to deliver the Strategy.

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Regional Water Resources and Water Transfer
It would be helpful to see the canal strategy reflect how it joins up with broader regional and national opportunities. For example, further detail on supporting adaption to a changing climate and improving resilience to extreme weather events, in a water resources context. There is also the River Severn to River Thames Water Transfer project to consider (see comment below on Water Authority engagement). This may potentially be a constraint or opportunity for the Strategy.

The canal network could have a greater role to facilitate regional planning of water resources, water trades, and helping mitigate flood risk. There may be links/opportunities here with the River Severn Partnership. To what extent have the relevant Water Authorities been involved to date? Have other opportunities been considered that link into core water company planning programmes such as the Water Industry National Environment Programme (WINEP)? This is particularly important, because currently one of the biggest challenges for the canals will be water availability (and quality). By playing into the bigger picture of water resource planning there is more chance of being successful at the local level. This could also potentially help cost / benefit appraisals. Even if the Strategy's proposals are not directly linked with regional water resource planning, significant demands for water across the "system" might factor into models and thinking on the solutions.

Serious Water Stress
In July 2021 Defra announced that the Severn Trent Water geographical area is now considered to be in "serious water stress" for the purposes of water resource planning. This means that the company has to consider compulsory customer water metering as part of its next Water Resource Management Plans. Further information is available at: https://www.gov.uk/government/publications/water-stressed-areas-2021-classification

Previously in Gloucestershire there has not been the same water stress or demand for supply that would necessitate higher water efficiency standards than normal in proposed development. Guidance indicates that primary sources of evidence which might support a tighter water efficiency standard for new dwellings are:

- The Environment Agency 'Water Stressed Areas Classification (2013)' which identifies areas of serious water stress where household demand for water is (or is likely to be) a high proportion of the current effective rainfall available to meet that demand.
  (Please note the above link is to previous water stressed areas classification from 2013, and is in part now superseded by this latest July 2021 update.)

Accordingly we consider this new designation now provides support and evidence to require higher/tighter standards of water efficiency in Local Plan policy. This would also relate to the Calas Strategy/SPD, and underlines the importance of the water resources queries we have raised above.

There may also be opportunities for water conservation as part of the Canals Strategy. For example canals enabling farmers and landowners to become service providers - particularly for storage of water during flooding, but also releasing water when areas are under water stress.

Water Quality
We note from the consultation documents that there is very little focus on water quality. This is a concerning omission. The only mention we can see of water quality is within Ingredient number 34 'water management': "Interventions aimed at preserving water

quality in the canal help it to function effectively in the wider freshwater ecosystem.". We would welcome a stronger focus on water quality. The strategy should be aiming to deliver water quality improvements, not just preserve water quality. Currently the waterbodies in the area are generally failing to meet 'good ecological status' as required under the WFD. The Stroud Local Plan (both adopted and emerging) includes policy to improve water quality in line with the WFD, and the Canal strategy should be doing the same.

It would be helpful to know how the WFD has fed into the Strategy to date. How will the Strategy deliver the aims of the WFD? When completed, is it intended that the canal(s) will qualify as a new WFD Waterbody?

It is also important that the growth that the Strategy may deliver is supported by timely and appropriate infrastructure improvements. We raise this in the context of wastewater treatment / foul drainage capacity. A WCS and/or IDP would assist in planning for this.

We welcome that retrofit renewables have been mentioned for the existing housing stock in the Strategy. Have retrofit SuDS been considered as well? A programme of SuDS retrofitting in public and private spaces could represent a significant opportunity to improve water quality in the catchment (as well as providing benefits in relation to flood risk, biodiversity, carbon sequestration, and public realm, health and recreation).

FLOOD RISK:
Having reviewed the documentation for this consultation, we are unclear what the strategy is trying to deliver in respect to flood risk. Accordingly, we wish to highlight the following;

Canals Strategy Document B
This document splits the canal into geographical lengths which seem logical to deal with the different characteristics; we make comment on the following;

(1) Western Stroudwater
We welcome the ambition outlined in note 3 ("The canal length between the M5 and A38 has capability to hold large ecological projects, from floodplain engineering works to tree-canopy renewal and wildlife foraging corridor opportunities…"). This should be part of the key principles of the current planning application for the missing mile (ref S.19/0291/FUL). The current level of ambition for delivering these benefits does not seem to be at the heart of the application.

(2) Eastington Canal Area
Again the lower part of the reach forms the majority of the current missing mile planning application which does not align with point 4 as highlighted above.

(5) Ebley Central Area
The canal between Ebley and Lower Wallbridge acts as a Flood Alleviation channel to protect many properties and businesses. This function must be maintained and wherever possible enhanced to help counter the impacts of climate change on the local flood regime. This ties in with point 8 on the diagram ("Nailsworth Stream is a tributary of the River Frome and worth considering in the wider valley network alongside the canals. The lower stretches of the canal alongside the River Frome are good examples of river/canal working in tandem to alleviate flood risk and more of these examples would be greatly encouraged.") This should also be highlighted in relation to the canal and not just the Nailsworth Stream.

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(6) Stroud Canal Area
As above this should be highlighted for the length of canal up to the Slad Brook confluence.

(8) Brimscombe
This area is also important in interacting with the nearby watercourse in relation to flood risk and ecology, but has not been highlighted.

(10) Eastern Upper End
The canal and river again interact in this area. Landscape development could aid in the future management of flood risk for lower category events in the form of Natural Flood Management, as this is part of the upper catchment and could benefit downstream communities.

Wallbridge Area
The western end of the proposal area lies between a section of the canal that was primarily used since its closure as a flood relief channel for the northern watercourses including Slad Brook, Painswick Stream and Ruscombe Brook.
Whilst the canal design incorporated this function it would be designed below current climate change standards so will need to be revisited as part of the wider Wallbridge Strategy to identify opportunities to future proof this area with regards flood risk.

Canals Strategy Document A – 'Ingredients'
In previous spatial strategies and planning documents that involve the canals within Stroud District, we have always highlighted the importance of flood risk when considering proposed future land uses. This Canals Strategy/SPD is no different. It is essential that a sequential approach to flood risk and development layout is taken. Reference should be made to Annex 3 of the NPPF and Table 3 of the Flood Risk and Coastal Change section of the NPPG when considering what land uses can go in flood risk locations. Wherever possible, building in the floodplain should be avoided. Any development in flood risk locations needs to take account of the most up to date flood data and climate change allowances/uplifts, and be designed to ensure that people and property will not be at an unacceptable risk of flooding. Furthermore development should deliver flood risk improvements and protect the floodplain itself so as to ensure that flood risk is not exacerbated.

The above matters may have a particular bearing on Ingredient numbers 18 Canal side living, and 12 Residential moorings.

It might also be helpful if the strategy were to include a visual reference to flooding, perhaps in the form of the Flood Map for Planning being overlaid on the maps, or inclusion of flood maps from Stroud District's relevant SFRAs

BIODIVERSITY:
We consider the strategy currently gives insufficient weight and consideration to environmental constraints, notably water resources and biodiversity. We recommend that additional attention is given to the value and vulnerability of the existing ecological resource, in particular the corridor east of Chalford and Eastern Upper Valley Canal Area. The strategy should also incorporate more significant environmental mitigation and enhancements before it is adopted as an SPD.

Construction, operation and ongoing maintenance of the canals could have a high risk of impacting irreversibly on the complex of sensitive habitats in the direct and indirect zone of influence of the canal (in phase 3 in particular). This includes the river Frome,

extensive tracts of ancient woodland and limestone grassland as well as a wealth of rare bats. If lining of what was considered to be a leaky canal over fissured limestone is required, this will add to the construction impacts.

There needs to be more explicit reference to the water resources issues and challenges associated with maintaining and restoring the canal network in the district. There are existing pressures on the river network from the downstream connections with the Gloucester Sharpness Canal to a licenced abstraction to feed the canal at Brimscombe and Ryeford as well as numerous overflows and connections. It is unclear whether there is a constant, reliable water supply to sustain lock operation and navigation in the upper reaches which routinely suffers from low flows. This will be exacerbated with the impact of climate change. The Canals and Rivers Trust abstraction at Whitminster diverts the majority of the flow from the Frome resulting in depleted flows along the downstream 3km of the river before its confluence with the Severn. A number of other watercourses in the District, notably the entire Cam catchment discharge all their flow directly into the Gloucester and Sharpness Canal and as such their connectivity with the tidal Severn is reduced.

Document A – Ingredient 34 (Water Management)
We would wish to have a greater understanding of what exactly is envisaged by Ingredient 34.

It refers to “initiatives to manage the supply of water to the canal from the surrounding catchment with seasonal variations and climate change provide the opportunity for multiple gains throughout the River Frome catchment”. It is unclear what this means.

What are the “Interventions aimed at preserving water quality in the canal help it to function effectively in the wider freshwater ecosystem”? What would “a wider catchment based flood attenuation strategy across Stroud District and the County can employ the canal as a storage and conveying facility, contributing to an overall flood management strategy for the corridor and the lower Severn valley” entail?

Navigation / Canal Options
We understand that there is a clear aspiration to enable boats to travel from Saul to Lechlade, and for full restoration of the Thames and Severn Canal. It is essential that in delivering such a strategy the environment is sufficiently protected and enhanced. Unless it is clearly established that this will be the case, it might be more appropriate to consider the ambition to fully restore navigation to the whole length of the canal as one option in the strategy. Another option might be maintaining and enhancing the existing pedestrian route and industrial heritage in the eastern reaches which may still deliver the canal as `a thoroughfare, an attraction, a centre of activity and unique recreational space`.

Water Transfer
The possibility of using the canal as a conduit for water transfer from the River Severn to the River Thames is by no means the preferred means of water transfer and opens up the Frome catchment to additional challenges such and non-native invasion species from the Thames.

Continuity for Nature
It would be helpful to have more detail as to how ‘Continuity for Nature’ will be protected and enhanced with respect to the wide variety of habitats and species within the zone of influence of the canal. We would be happy to engage to identify more bespoke and locally appropriate measures for example in relation to Ingredients of the Future Place

and green infrastructure & biodiversity. We note that document A highlights that wildlife barriers need to be addressed and new development must have a fundamentally integrated approach to supporting nature.

Enhancement of the Water Environment and Associated Species
Given the interconnectedness and proximity of the river system and canal there is a particular need to identify and commit to measures to mitigate the impacts of the restored canal and enhance the status of aquatic and riparian species including the movement and utilisation by resident fish and designated migratory species from the Severn Estuary SSSI/SAC/Ramsar including the critically endangered eel.
Measures include:

- ensuring sufficient space is left between the canal and the river for natural geomorphological processes to evolve and for full or partial river restoration to take place
- removing or modifying barriers to fish movement notably weirs
- opening culverted lengths
- removing or lowering impoundments to restore floodplain connectivity
- restoring variety in bank profile, channel width, sinuosity, and in-stream habitat
- restoring geomorphological processes and development of in-channel features and channel evolution with natural sediment transport
- restoring meanders to restore stream length, create backwaters, braided channels, re-profiling, slackening or terracing of multiple inside bends to improve geomorphological diversity.
- In-stream habitat improvements such as woody debris groynes to enhance spawning gravels
- control of invasive alien species including giant hogweed
- creation and enhancement of species rich floodplain meadows
- increasing the diversity and storage capacity and roughness of the floodplain through the creation of scrapes, ponds and backwaters.
- Riparian tree planting and fencing (designed to allow flood flow)
- Orchard planting

In some locations such measures can holistically increase storage of the watercourse and associated land as well as improving the ecological quality of these waterbodies through enhancing physical habitat and flow variety and helping the canal achieve its full potential as a continuous wildlife corridor.

Carbon Reduction / Sequestration
We welcome the prominence given to **c**arbon reduction / sequestration but would advocate discussion of more canal specific measures including construction and lighting. The statement that the canal corridor provides a resource for sequestering carbon as a water body and in its green infrastructure needs to be tempered to acknowledge that the existing habitats including marshy wetland and mature trees that would be in the footprint of a navigable canal almost certainly sequester carbon more effectively than navigable open water. Wherever possible these features should be maintained, or if necessary compensated for and/or off-set.

Renewable Energy
Whilst we support renewable energy schemes, these must be designed appropriately having due regard to the water environment and associated species. The space and infrastructure for renewable energy generation in often constrained sensitive locations should not be underestimated, nor the cost of designing appropriate mitigation to protect the water environment and associated species. For example hydropower schemes are

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often constrained by the availability of water (hands off flows) and the need to ensure that fish are protected. The planning and Environmental Permitting Regulations implications of such schemes should be considered at the earliest opportunity.

Waste – Silt Management
References to waste need to include consideration of silt management throughout the lifetime of the canal operation. The prevailing practice of disposing of silt on the banks, often around the trunk and root zone of trees, reduces the ecological quality and diversity of the riparian corridor and promotes species tolerant of nutrient enriched conditions.

Canal Strategy Areas:
We have the following more specific comments on the canal strategy areas:

Saul & Frampton Canal Area
We acknowledge the value of the planted woodland to the east and west but would advocate that open wetland habitats would be the most appropriate target for additional habitat restoration in this area. The disused length of canal from Saul Junction to the River Severn is an important ecological corridor. Its existing value is already recognised in its designation as a Key wildlife site, its primary value to wildlife being reedbeds.

Lower Gloucester and Sharpness
Canal-based projects to enhance biodiversity for the wider area and enlarge habitats for wildlife recreation outcomes associated with WWT visitors enjoying the wider area along the canal should include managing and mitigating recreational pressures on the estuarine bird feature of the Severn estuary Ramsar/SPA, on the estuary itself, and functionally linked land.

Western Stroudwater
The canal length 3 between the M5 and A38 is highlighted as having the capability to hold large ecological projects, from floodplain engineering works to tree-canopy renewal and wildlife foraging corridor opportunities. There are also significant opportunities in sections 4 and elsewhere. As referred to in the Flood Risk section of this letter, we consider the current planning application for the Missing Mile is not capitalising on these aspirations.

Eastington Stonehouse
We agree that the canal length between the M5 and A38 has capability to hold large ecological projects, including floodplain connectivity and river restoration.

Ryeford and Ebley Canal Area:
Diverging streams of the River Frome westwards are highlighted as providing opportunities to draw these two habitat corridors together with vegetation cover and for local residents to access natural green space.

5. The River Frome corridor is specifically highlighted in section 5 in relation to biodiversity strategies. The Frome corridor and floodplain and tributaries is equally important in other reaches.

It should be noted that there is a gauging station critical to water management (both high and low flows) in the Ebley reach.

Stroud Canal Area

The lower stretches of the canal alongside the River Frome are cited as good examples of river and canal working in tandem to alleviate flood risk to be encouraged elsewhere. The replication of this approach should be considered with caution. The lowest reaches of Painswick Stream, Slad Brook and Ruscombe Brook have, arguably, been compromised ecologically through discharging into the canal rather than direct to the river.

Thrupp Canal Area
We agree that opportunities exist to increase biodiversity and enhance existing habitats on larger land-areas alongside the canal and within the river but in a wider area than that highlighted in area 5.

Chalford
Despite its high value there is no reference to existing biodiversity quality, the river, or opportunities for enhancement.

Eastern Upper Valley Canal Area
We concur with much of the description of this area. We note the environmental assets are focused on in relation to landscape character and tourism experiences. There is merit in acknowledging the specific natural heritage in this reach and its sensitivity to change.

LAND CONTAMINATION AND PROTECTION OF GROUNDWATER AND SURFACE WATER
We cannot find mention within the documents of specific reference to land contamination, and associated impacts on groundwater and surface water. The regeneration of the canals and their adjacent brownfield land throughout the District represents a significant opportunity to remediate land contamination by removing sources of existing and historic pollution and contaminants. This in turn could deliver water quality improvements to groundwater and surface waters, as well as soil. It is essential that development is delivered in tandem with the cleaning-up of such sites, and that high standards of remediation are undertaken. Depending on where hotspots of contamination may lie, there could be implications for future land uses. Signposting such matters within the Strategy would be helpful. We would wish to see the Strategy incorporate wording to secure the protection and enhancement of aquifers, Source Protection Zones and surface waters (such as watercourses).

SUSTAINABLE WASTE MANAGEMENT:
Any restoration involving activities such as excavation of infilled canal sections, repair to embankments and canal sides/locks, dredging to remove silt, and formation or reactivation of new canal features can all involve a requirement for soil and sludge disposal, potentially encounter hazardous materials and possibly require remediation, including historic landfill that may or may not be documented and past industrial uses that may have left legacy contamination along the canal route.

It may be possible to re-use suitable clean materials as part of developments to minimise impacts and costs from removing and importing waste. Where it is necessary, waste removed from site should be taken to a suitably regulated and compliant facility or treated via a suitably authorised process. It is possible that services including sewage pipes and underground tanks may have been installed in the past and will have to be managed appropriately. Such features can create pathways for contamination.

We welcome the inclusion of waste within the carbon reduction opportunities section in Document B. However there is limited consideration of waste as a resource. We believe

the Strategy could do more to include Circular Economy principles, and make greater linkages with the sections on energy.

With regards to energy provision, there may be opportunities for community Combined Heat and Power (CHP) schemes. We note there is reference to more rural/isolated communities currently relying on heating oil and the need to move away from carbon sources of energy/fossil fuels (although where the gas grid is mentioned in this context it should of course be noted that gas is also a carbon energy source). We welcome the indication that heat pumps, solar and wind energy will be championed through the Strategy. This could be strengthened in the documents.

I trust the above will assist at this time. Please do not hesitate to contact me if you have any queries.

Yours faithfully

[redacted]
Planning Specialist – Sustainable Places
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