



The countryside charity
Oxfordshire

www.cpreoxon.org.uk

Campaigning to protect our rural county



Flooding and Pollution report

– a survey of Oxfordshire's Town & Parish Councils, 2021



“Water is the driving force of all nature”

Leonardo da Vinci

CASE STUDY: Fritwell

Fritwell is a small village and parish about 5 miles northwest of Bicester, within Cherwell District Council area, population around 800.

During periods of high rainfall and during most winters, excess groundwater feeds into an inadequate sewerage system, causing capacity problems. Low lying properties, gardens and roadways suffer from sewerage and water overflow, emitting in the main from manhole covers.



A narrow route for tankers collecting sewage day and night

At these times, frequent tanker visits – approx. every two hours, night and day – are necessary to prevent flooding in parts of the village.

This causes noise nuisance late at night, road damage, road hazards on narrow village roads and lack of privacy to many residents, especially where tankers pass close to windows and gardens. There are also numerous concerns about vibrations causing significant damage to property.

Despite this, in the parish’s view, wastewater and sewage issues have not been given sufficient consideration in a number of approved housing developments over the years, with utility providers either not objecting or objecting belatedly. Concerns remain about a new development for 28 homes that has outline planning permission, with reserved matters including drainage now under consideration.

The number of different agencies involved in the issues (e.g Environment Agency, local councils, various contractors, developers etc) made an effective joined-up approach, with clear accountability, difficult for everyone.

After some persistence, the Parish Council has recently managed to bring both the water company and developer to the table to talk directly with residents. The latter has now proposed a sustainable urban drainage scheme, and the water company is planning to install temporary overflow container tanks to reduce the need for tanker collections whilst further assessments are made.

Summary

CPRE Oxfordshire has long been concerned about the water-related impacts of new development, as well as the practice of discharging untreated sewage into our rivers.

Anecdotal reports suggested that issues were widespread across Oxfordshire, but there was no publicly available overview of the situation.

This survey of Oxfordshire's town and parish councils and parish meetings has enabled us to gain a better grasp of the current position.

The findings are startling, with around 1 in 5 of our local towns and parishes reporting significant flooding and/or sewage-related problems.

Our climate, nature and health emergencies all dictate that urgent action is required to address this.

This will require concerted action from both Thames Water and our policy-makers at all levels, to ensure that not only is investment targeted towards resolving existing issues but that future development does not outpace environmental and infrastructure constraints.

In brief, our recommendations are:

1. Nationally, we call for the improved monitoring and enforcement of existing policies and support legislation, through the Environment Bill and Sewage (Inland Waters) Bill, for the introduction of legally binding targets for biodiversity and freshwater.
2. We look forward to the new Thames Water [Drainage & Wastewater Management Plan](#) and urge that clear measures are set out in the Plan to address the issues raised in this report, including targets and investment commitments.
3. We urge the Oxfordshire 2050 Plan team to include robust responses to the concerns highlighted in the survey. In particular all new developments must demonstrate that their associated infrastructure will either maintain or improve water quality, not add to the risk of flooding, and be in place before the site is occupied.
4. Local Authorities must invest in expertise to provide robust consideration of drainage issues when assessing planning applications, including the cumulative impact of new development.
5. We urge that drainage and sewage polices be included in all Neighbourhood Plans and communities be supported to develop these for their parishes.
6. CPRE supports calls for the River Thames and its tributaries to achieve [Bathing Water Designation](#) status, as a key driver for the health of both our rivers and our residents, and asks all our local policy makers to work towards delivering this outcome as quickly as possible.

More detail is provided on page 9.

Our overall aim is to ensure a healthy and resilient system that protects our residents and our rivers.

Background

Flooding and river pollution events seem to be increasingly in the news. Just this year we have seen summer thunderstorms causing flooding in London, and elsewhere in the UK, and winter storms causing flooding in north-west England and Wales. The frequency of heavy rainfalls is certainly increasing. The UK Met Office's latest [UK State of the Climate report](#)¹ states that the UK's climate is becoming wetter. For example, the highest rainfall totals over a five-day period are 4% higher during the most recent decade (2008-2017) compared to 1961-1990. Furthermore, the amount of rain from extremely wet days has increased by 17%. This is very likely to be because of climate change linked to increasing greenhouse gases. Another Met Office study has shown that an extended period of extreme winter rainfall in the UK, similar to that seen in winter 2013/14, is now about seven times more likely due to human-induced climate change².

There are, of course, other reasons why localised flooding may be worsening: increasing urbanisation, with associated hard, impermeable surfaces, will lead to faster runoff, poorly maintained drains and culverts will lead to backup of water and new development in the flood plains will increase the number of properties at risk.

Flooding often causes river pollution. In a flood event, water can back up in the sewers and cause overflowing sewerage in houses and roads, and treatment works can be overwhelmed in flood conditions. The latter is a pressing problem for our rivers: the majority of Oxfordshire's eight major rivers are classed as having moderate or poor cleanliness³. The Rivers Trust has documented the number of storm overflows at sewerage works across the UK. In Oxfordshire it doesn't make pretty reading. In 2020 over ten works in the County reported over 100 overflow events each – with a works often discharging raw sewage into the river for over 2,000 hours through the year⁴. Flooding, of course, may not be the only cause of the overwhelming of the treatment works – poor maintenance and a failure of the infrastructure to keep up with the rate of development across the county may also be contributing.

Nationally concern about sewerage discharges has led to the Sewage (Inland Waters) Bill 2019-21, a Private Members' Bill introduced by Phillip Dunne MP. The Bill would place a duty on water companies to ensure that untreated sewage is not discharged into rivers. It is likely the Bill will not be passed but the Environment Bill, currently going through Parliament will contain reforms to drainage and sewerage management. It is clear that there is an increasing demand for our rivers to be clean and safe. With this in mind, in Summer 2021 CPRE Oxfordshire undertook a survey of our local Parish & Town Councils to identify issues of flooding and water quality across the County – the results of this survey are presented below.

SEWAGE SPILLS

Oxfordshire has 314 Parishes (235 parish councils & 68 parish meetings).

105 of these are being served by Sewage Treatment Works with a record of spilling.

In 2020:

87 of these spills were active for over 100 hours.

57 for over 500 hours.

36 for over 1,000 hours.

Source: Windrush Against Sewage Pollution

1 <https://www.metoffice.gov.uk/research/climate/maps-and-data/about/state-of-climate>

2 Christidis, N et al. 2015. Extreme rainfall in the UK during winter 2013/14: The role of atmospheric circulation and climate change. Explaining Extreme Events of 2014 from a Climate Perspective.

3 <https://www.wildoxfordshire.org.uk/stateofnature/reports/>

4 <https://www.riverstrust.org/key-issues/sewage-in-rivers#main-content>

Who is Responsible?

Many different public and private bodies are responsible for our rivers and dealing with flooding and sewage. The **Environment Agency** (EA) has overall strategic oversight of our rivers. It is responsible for flood management activities on main rivers (including the allocation of Government money) and works in partnership with the Met Office to provide flood forecasts and warnings. The EA also monitors water flows and quality and can identify and prosecute polluters.

The **Lead Local Flood Authorities (LLFAs)** are the county councils and unitary authorities, in our case Oxfordshire County Council. They lead in managing local flood risks (i.e. risks of flooding from surface water, ground water and ordinary (smaller) watercourses). They are statutory consultees to local planning authorities, providing technical advice on surface water drainage for major developments. They also play a lead role in emergency planning and recovery after a flood event.

Water companies play a major role in managing flood risks. They manage the risk of flooding to water supply and sewerage facilities and flood risks from the failure of their infrastructure. They work with developers, landowners and LLFAs to understand and manage risks – for example, by working to manage the amount of rainfall that enters sewerage systems. Where there is frequent and severe sewer flooding, the companies are required to address this through their capital investment plans, which are approved and regulated by Ofwat. Thames Water is currently preparing a Drainage and Wastewater Management Plan (DWMP), a long-term (25 year or more) costed plan that should set out the future risks and pressures on our drainage and wastewater systems and identify the actions required to manage them.

Finally, the **District Councils** can carry out flood management works on minor watercourses. District Councils are the land drainage authorities.

The Local Government Association website offers more detailed information on the above.⁵

The Results from the Survey

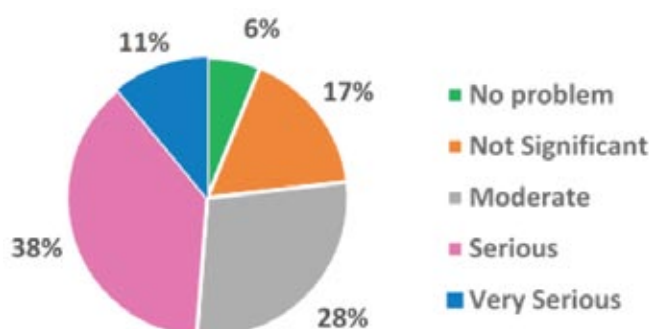
In Summer 2021 CPRE Oxfordshire sent a questionnaire to the 235 Parish Councils, 15 Town Councils and 68 Parish Meetings in Oxfordshire. The survey had 19 questions to gauge the experiences in floods and water pollution in the parishes. We received 83 replies, a response rate of 26%, or just over 1 in 4. Our assumption is that those areas which replied are the ones with the most serious flooding and water pollution problems. A copy of the survey is provided in Appendix 1.

You can also see the results summarised on a [searchable Google Map](https://www.local.gov.uk/topics/severe-weather/flooding/local-flood-risk-management/) ([tinyurl.com/ypyurupt](https://www.local.gov.uk/topics/severe-weather/flooding/local-flood-risk-management/)). See back page.

Overall the replies show a worrying incidence of flooding and pollution across the County.

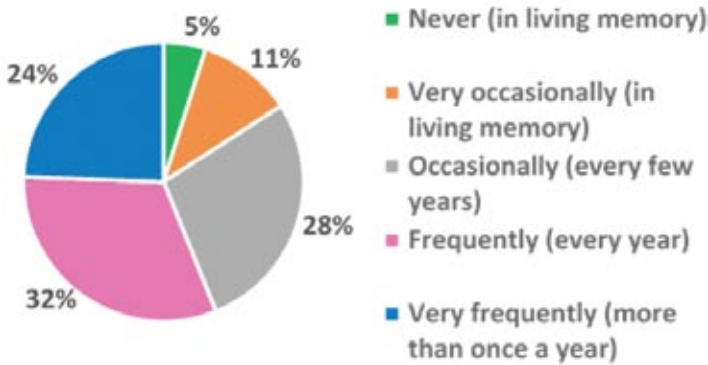
Question 1: How would you rate flooding as a problem in your Parish?

A large number of respondents (54) rated flooding as a problem in their area (Q1). Overall 11% (9 respondents) rated it as very serious issue. In terms of frequency (Q2), 24 respondents experienced flooding very frequently, and only 5% of respondents never experienced flooding.



⁵ <https://www.local.gov.uk/topics/severe-weather/flooding/local-flood-risk-management/>

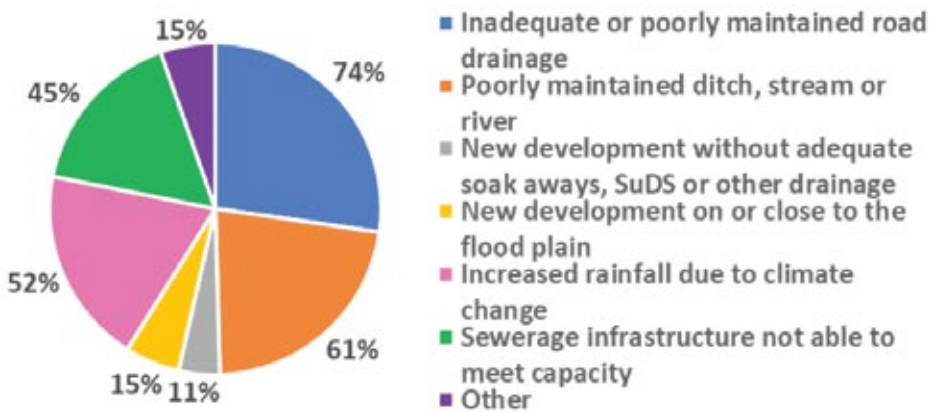
Question 2: How often is flooding a problem?



Question 3: When flooding occurs, what is usually the reason?

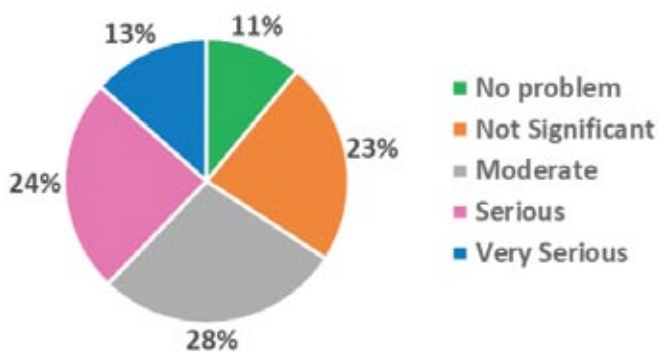
(Multiple choices were allowed, so totals add up to more than 100%)

The primary causes were poorly maintained road drainage, poorly maintained ditches, streams and rivers, climate change and sewerage infrastructure not able to cope (Q3).



Question 4: How would you rate sewage/sewerage infrastructure as a problem in your parish?

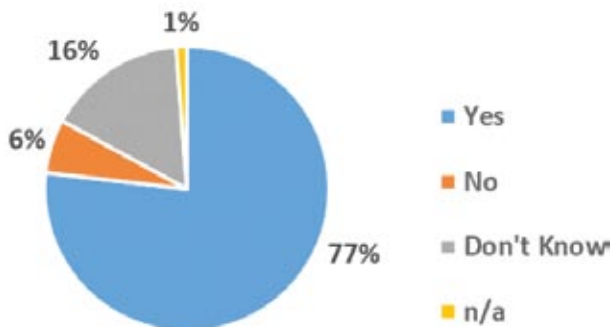
63 respondents rated sewage as an issue (Q4), with 13 having very serious problems. Typical problems were infrastructure failures and capacity issues associated with new developments.



“The most significant risk is the flooding of the sewerage system which spills out raw sewage onto roads and into gardens when overwhelmed with flood water. Since we have no footpaths in the village, children catching school busses are forced to walk through this twice a day.”

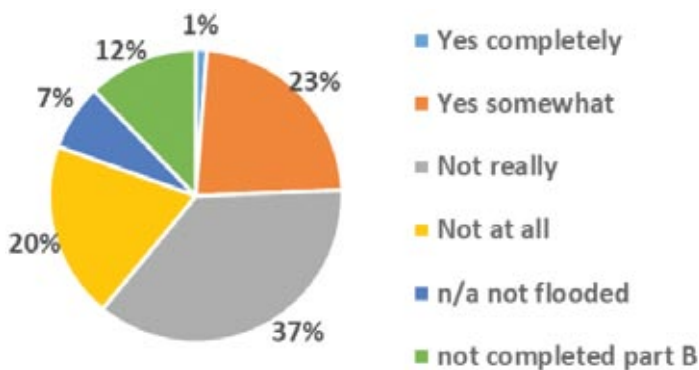
Question 6: Do you think sewerage facilities in your area should be improved to cope with demand from development to stop the use of storm overflow?

Most respondents were aware that Thames Water were allowed to discharge raw sewerage into rivers and the majority (77%) felt that their facilities should be improved to cope with new developments.



Question 12: If you have had a problem with flooding have you been satisfied with the response from a responsible body from happening again?

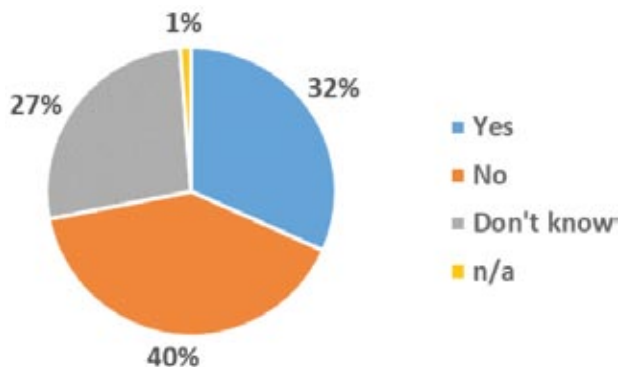
In response to Question 12: 'If you have had a problem with flooding have you been satisfied with the response from a responsible body from happening again?' The majority of the respondents were not really satisfied and only 1% of respondents were completely satisfied.



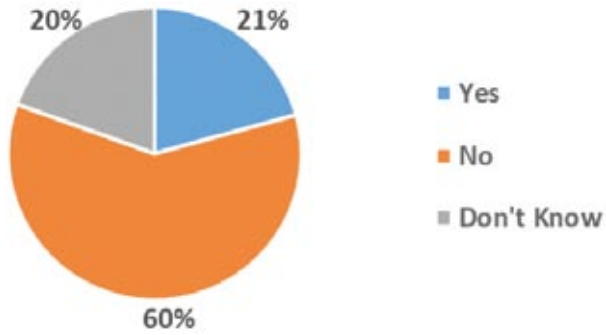
"It is very frustrating that the agencies involved, Thames Water and Oxfordshire County Council, do not have a joined up approach to work together to address issues."

Question 7: Are you aware of any water-related risks (eg flooding, drainage, sewage) associated with your District/City Council's Local Plan for future development?

One third of respondents (32%) are aware of water-related risks (flooding/drainage/sewage) associated with their District Local Plan for future development. Yet only 21% of Parishes with a Neighbourhood Plan were known to have included policies on flooding or sewerage.



Question 8: If your Parish has a Neighbourhood Plan, does it have any policies on flooding or sewerage?

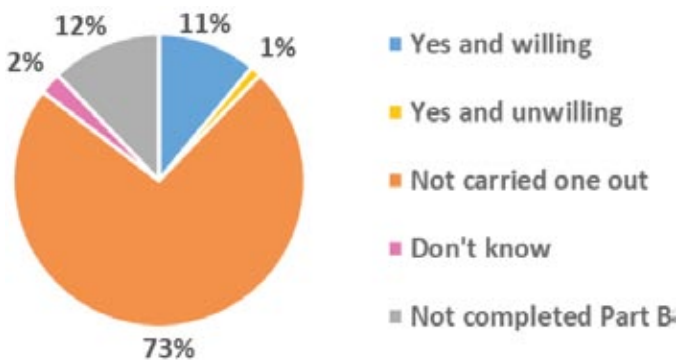


“If there are water related issues with any proposed sites, these should be addressed through the planning process. It is only in that way that information can be generated to find effective solutions. In some cases, well designed development can help mitigate water control issues.”

“Flooding and its causes are so often very local as to be beyond the scope of a national or generic document to control. Who is going to advise us about a listed medieval bridge? Local knowledge is more applicable.”

Question 13: Has a strategic flood assessment been undertaken for your parish and if so, would you be willing to share it?

Only a very small number (12%) had a strategic flood assessment undertaken for their Parish.

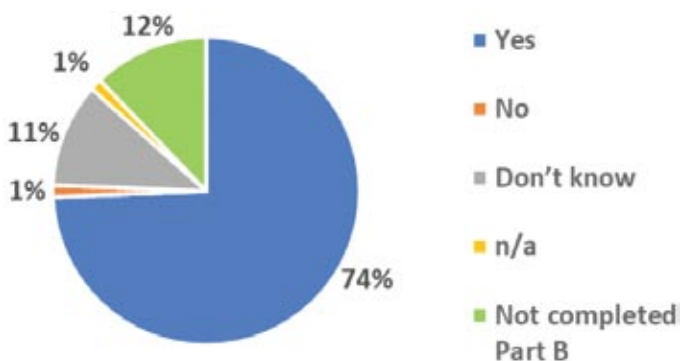


“General feeling of no support for rural areas, does not fit cost benefit analysis”

“We remain to be convinced that maintenance can or will be enforced and are concerned that over time, certain features will be lost from small sites.”

Question 17: Should there be a National Standards to determine planning applications for drainage systems serving more than one property?

Our question on national drainage system standards drew a particularly strong reaction with nearly ¾ of respondents saying that these should be in place for determining planning applications for multiple properties.



Key Findings & Recommendations

Even if we assume our respondents are the only areas in Oxfordshire with significant problems, the numbers are still shocking.

- **At least 17% of towns & parishes in Oxfordshire experience flooding problems.**
- **At least 20% of towns & parishes in Oxfordshire experience issues with sewage / sewerage infrastructure.**

Additionally, the lack of relevant policies in most Neighbourhood Plans and dissatisfaction with responses from the responsible body appears to suggest a policy failure that is in urgent need of addressing.

Climate change and the huge development pressures on Oxfordshire mean that flooding and sewage pollution events will only get worse unless substantial and sustained investment is made in our infrastructure. With the ever-increasing interest in the use of our waterways for nature and leisure, the protection and enhancement of our waterways must now be a high priority.

It is also clear from our survey that many of the issues raised are due to specific local circumstances, and require time and investment to resolve the situation, including better co-ordination between the various bodies.

Our Recommendations

National policy – We fully endorse the recommendations of the recent RSPB report, *Troubled Waters*⁶: to improve monitoring and enforcement of existing policies and introduce legally binding targets for biodiversity and freshwater. We ask our local MPs to support the Sewage (Inland Waters) Bill should it come forward and to ensure that water quality measures in the Environment Bill are as robust as possible.

In line with the vast majority of our respondents, we believe that there should be National Standards to determine planning applications for drainage systems serving more than one property. We also believe that greater weight should be given to water companies' responses to applications where they identify significant concerns about being able to provide the adequate supporting infrastructure.

Thames Water Drainage & Wastewater Management Plan⁷ – we understand this will be due out for consultation in 2022. We ask that due consideration is given to this survey and clear measures are set out in the Plan to address the issues raised, including targets and investment commitments. We encourage our local authorities at all levels to be ready to engage in the development of this Plan, including responding to this consultation when it takes place.

Oxfordshire 2050 Plan⁸ – The Oxfordshire 2050 Plan is seeking to provide a strategic planning framework for managing flood risk and for protecting and enhancing water quality. We welcome the emerging policies on both Flood Risk and Water Quality, and that a Strategic Flood Risk Assessment is being commissioned to inform the Plan.

All new developments must demonstrate that their associated infrastructure will either maintain or improve water quality, not add to the risk of flooding, and be in place before the site is occupied.

Whilst it is right to be concerned about the allocation of development within the flood plain, one of the impacts of climate change will be more frequent, wetter outbursts that could increasingly overwhelm existing sewerage infrastructure in many parts of the county, not just the 'traditional' flood plain.

We hope that the information gathered through this survey will be of use to the Oxfordshire 2050 Plan team as it continues to evolve a robust policy response to these issues.

6 <https://www.rspb.org.uk/globalassets/downloads/our-work/troubled-waters-report>

7 <https://www.thameswater.co.uk/about-us/regulation/drainage-and-wastewater-management>

8 <https://oxfordshireplan.org/>

Planning applications – Local planning authorities need to invest in expertise to provide robust consideration of drainage issues when assessing planning applications and ongoing monitoring and enforcement. Relying on developer led assessments is not sufficient and it should not fall to parish councils or local campaign groups to provide the scrutiny required.⁹ This would avoid exacerbating or replicating current problems, but it is also worth bearing in mind that well designed development could in fact be a positive tool for mitigating existing water control issues.

Neighbourhood Plans – it is perhaps surprising that whilst Oxfordshire has a comparatively high coverage of neighbourhood plans, few as yet seem to have specific policies on water and drainage. We would like to see further work in this area to support neighbourhood plan groups, perhaps through the development of appropriate template policy wording.¹⁰

Bathing Water Designation – CPRE particularly supports calls for the River Thames and its tributaries to achieve this status, as a key driver for the health of both our rivers and our residents, and asks all our local policy makers to work towards delivering this outcome as quickly as possible.

CASE STUDY:

Windrush Against Sewage Pollution (WASP)

Windrush Against Sewage Pollution (WASP) is a charitable trust, based in West Oxfordshire, set up to protect the River Windrush from sewage pollution and working with other groups on the many rivers suffering a similar fate including the Evenlode, Cherwell, Ray, Glyme and Thames.

In 2020, Thames Water reported dumping untreated sewage for 3,644 hours on 228 occasions from four of the sewage works on the River Windrush.

WASP reports that the long-term impacts of sewage pollution on the river have led to an increase in algae and sediment, a decline and disappearance of aquatic plants, a decimation of invertebrate life, murky water, even sewage fungus, and struggling fish populations. The health risks from faecal bacteria and other pollutants in sewage impact seriously on the freedom of local people to enjoy the benefits of a clean river as a recreational asset.

The House of Commons Environmental Audit Committee visited WASP for a day of first-hand evidence in July 2021 as part of their enquiry into Water Quality in Rivers. WASP has featured in two documentaries: George Monbiot's 'Riverside' and BBC Panorama's 'The River Pollution Scandal'. Thames Water's CEO, Sarah Bentley, has recently agreed to undertake a River Windrush recovery project with WASP as an active contributor.

WASP specialises in using citizen science and volunteer professionals to analyse water industry data and this has led to the discovery of huge numbers of previously unknown and often illegal sewage pollution events. This groundbreaking aspect heads WASP's campaigning work to end the release of untreated sewage and to set a higher standard for permitted discharges of treated waste. Their aim is to make the Windrush, and other rivers, safe for all.

"We expect the water industry to be forced to obey the law as the most basic protection for the public but that is still not happening. We want to pass our rivers onto the next generation as assets – not liabilities." Ash Smith, WASP Founder

For further info: www.windrushwasp.org

9 CPRE Oxfordshire's Watchpoints for Drainage Aspects of Planning Applications might be of help to Parish Councils/local groups seeking to provide informed comment on planning applications:

<http://www.cpreoxon.org.uk/resources/documents/item/2804-watch-points-for-drainage-aspect-of-planning-applications>

10 Oxfordshire County Council publishes a guide to Neighbourhood Planning & Flood Risk:

<https://www.oxfordshirefloodtoolkit.com/planning/flood-management/>

Appendix 1 Survey Questions

PART A

Q1: How would you rate flooding as a problem in your Parish?

No problem / Not Significant / Moderate / Serious / Very Serious

If flooding is a problem, can you give a brief description of what the issues are:

Q2: How often is flooding a problem?

Never (in living memory) / Very occasionally (in living memory) / Occasionally (every few years) / Frequently (every year) / Very frequently (more than once a year)

Q3: When flooding occurs what is usually the reason?

You can tick more than one box.

Inadequate or poorly maintained road drainage

Poorly maintained ditch, stream or river

New development without adequate soak aways, SuDS or other drainage

New development on or close to the flood plain

Increased rainfall due to climate change

Sewerage infrastructure not able to meet capacity

Other/Don't know

Q4 How would you rate sewage/sewerage infrastructure as a problem in your Parish?

No problem / Not Significant / Moderate / Serious / Very Serious

If sewage/sewerage infrastructure is a problem, please can you give a brief description of what the issues are?

Q5: Are you aware of the Thames Water's legally permissible emergency use of storm overflows which allow untreated sewage to flow into water courses and rivers in emergency flood conditions?

Yes / No

Q6: Do you think sewerage facilities in your area should be improved to cope with demand from development to stop the use of storm overflows?

Yes / No / Don't know

Q7: Are you aware of any water-related risks (eg flooding, drainage, sewage) associated with your District/City Council's Local Plan for future development?

Yes (if possible, please summarise)/ No / Don't know

Q8: If your Parish has a Neighbourhood Plan, does it have any policies on flooding or sewerage?

Yes (if poss. please include a link)/ No / Don't know

Q9: Have you objected to any planning applications for new housing or other development on grounds of water-related issues (flooding, drainage, sewerage)?

Yes (If so, did the development go ahead? Have there been subsequent problems?) / No / Don't know

Q10: Do you have any photographs / film footage / case studies that would help us with our campaign?

Q11: If there is anything else you would like to tell us in relation to these issues, please do so here:

PART B (OPTIONAL)

Q12: If you have had a problem with flooding have you been satisfied with the response from a responsible body to stop it from happening again?

Yes, completely / Yes, somewhat / Not really / Not at all / Not applicable as we have had no flooding

Q13: Has a strategic flood assessment been undertaken for your parish and if so, would you be willing to share it with CPRE? Yes and willing to share it with CPRE / Yes but not willing to share it with CPRE / Not carried one out

Q14: As the Lead Local Flood Authority (LLFA), Oxfordshire County Council has responsibility for local flood risks such as ground water flooding, surface water run-off and ordinary watercourses. They are also responsible for investigating flooding, making their findings public and keeping an up-to-date register. Please indicate any dealings you have had with the LLFA and your experience.

Q15: Do you think Oxfordshire County council is the appropriate body to be the Lead Local Flood Authority?

Yes (give reasons) / No (give reasons) / Don't know

Q16: Have you read Oxfordshire County Council's policy guidance [Local Standard & Guidance for Surface Water Drainage on Major Development in Oxfordshire](#)¹¹ (29 Nov 18)? Do you agree it is robust enough to ensure developers adhere to the construction and upkeep of SuDS and other flood defences during and post development?

Yes (give reasons) / No (give reasons) / Don't know

Q17: Should there be National Standards to determine planning applications for drainage systems serving more than one property?

Yes / No / Don't know

Q18: Have you seen CPRE Oxfordshire's [Technical Briefing on the Watch Points for Drainage](#)¹² when assessing planning applications?

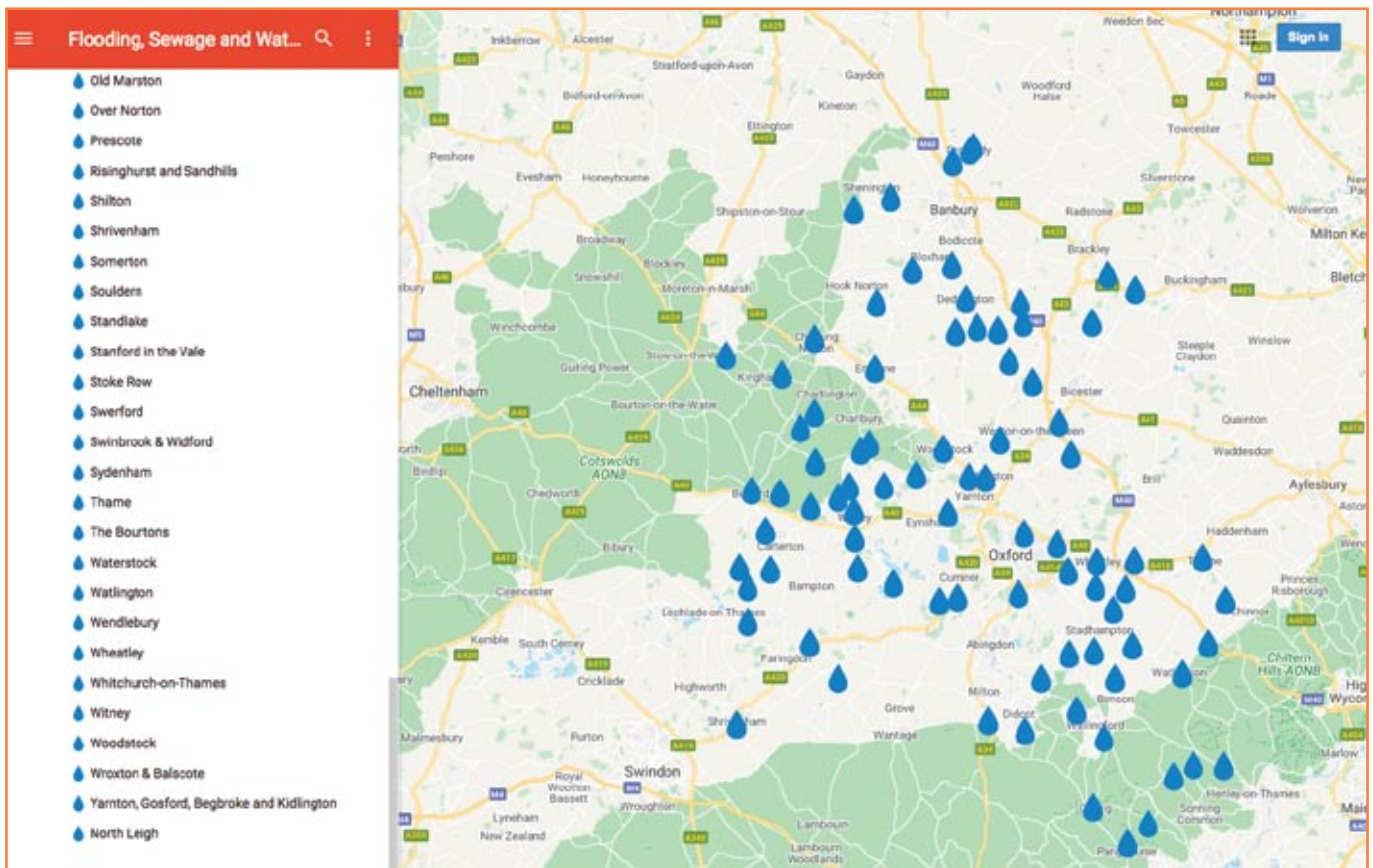
Yes / No / Don't know

Q19: If there is anything else you would like to tell us in relation to Part B questions, please do so here:

A copy of the full survey responses is available on request: E: administrator@cpreoxon.org.uk

11 <https://www.oxfordshirefloodtoolkit.com/planning/surface-water-drainage/>

12 <http://www.cpreoxon.org.uk/resources/documents/item/2804-watch-points-for-drainage-aspect-of-planning-applications>



The Results from the Survey

You can see the results summarised on a searchable Google Map (tinyurl.com/ypyurupt).

How you can help

If you are concerned about the issues raised by this report, please help to make a difference:

Demand action –

Contact your local councillor / MP – find out who they are at <https://www.writetothem.com/>

Contact your local water company. You can reach the Thames Water team working on their Drainage & Wastewater Management Plan at DWMP@thameswater.co.uk

Lend us your voice –

You can support CPRE Oxfordshire by joining as a member, making a donation or becoming a CPRE volunteer.

Find out all you need to know, including how to sign up for our free monthly e-newsletter, at www.cpreoxon.org.uk/join-us