

APPG on Microplastics Roundtable: Microplastic Pollution in Sewage and Sludge: Scale, Impact, and Solutions - 25 June 2025

Summary notes

Attendance

Alberto Costa MP

Tobias Arno
Gemma Austin
Mel Connell
Ruby Free
Avril Greenaway
Stephen Hayes
Emma Holland-Lindsay
Rachel Impey
Mark Johnston
Dr Max Kelly
Dr Andrej Krzan
Cherilyn Mackrory
Aanchal Mann
Davide Moruzzi
Andrew Mullen
Erika Popplewell
Emily Stevenson
Professor Richard Thompson
Dr Natalie Welden
Professor Jamie Woodward
Rachel Wyatt

Chair

National Federation of Women's Institutes
BSH Home Appliances Ltd.
Cleaners Seas Group
Surfers against Sewage
Cleaner Seas Project
Xeros Technology
National Federation of Women's Institutes
BSH Home Appliances Ltd.
The Scarab Trust
University of Plymouth
PlanetCare
Made for Life Organics
National Federation of Women's Institutes
Parliamentary Assistant to Alberto Costa MP
Beko
River Action UK
Beach Guardian CIC
University of Plymouth
University of Glasgow
University of Manchester
Marine Conservation Society

On 25 June 2025, the All-Party Parliamentary Group (APPG) held a stakeholder roundtable on Microplastic Pollution in Sewage and sludge. Professor Jamie Woodward from the University of Manchester presented findings from his research on microplastic pollution of riverbeds from wastewater discharges. This was followed by an open discussion on the topic and possible solutions and focus of the future work of the APPG.

Key note: Professor Jamie Woodward, University of Manchester

- Microplastics enter rivers from a range of sources, including domestic wastewater, road runoff, trade effluents, and especially untreated sewage discharges.
- When fully operational, treatment works can remove 95–99% of microplastics. However, high concentrations found in riverbeds suggest that treatment is inconsistent or failing.

- Over 90% of microplastics captured during treatment remain in sewage sludge, which is then spread on land.
- Microplastics accumulate in riverbed sediments more than in the water column. Recent (unpublished) research indicates all fish sampled from polluted riverbeds were contaminated.
- There is still no national-scale survey from the Environment Agency. Professor Woodward stressed the need for systematic data collection and appropriate equipment.

Discussion summary and key points

Attendees discussed the scale and impact of microplastic pollution. It also considered how the Group could support the work to tackle it.

Scale of the issue

Attendees discussed the scale of the problem.

- Avril Greenaway shared that recent research had shown microplastics in soil increased by 1450% in 4 years where sludge had been applied, and highlighted that most farmers are unaware of the pollutants in the sewage sludge they use.
- Professor Richard Thompson noted that a significant amount of microplastics are emitted while wearing synthetic garments, in addition to washing.
- It was noted by several that a key factor for untreated sewage spills, was the lack of enforcement of regulations, due to lack of funding for regulators.
- Cheryl Mackrory and Rachel Wyatt raised challenges about the difficulty of disposing polluted sewage sludge.
Rachel Wyatt also highlighted that untreated sewage and sludge also caused emission of other pollutants, such as PFAS.
- Some also highlighted less explored areas of microplastic pollution, including the use liquid polymers in personal health products and the use of biomedica in wastewater treatment.

Policy and regulation:

Attendees considered what interventions would be effective in tackling the issue.

- The Chair highlighted that the Group's 2021 report had outlined a suite of recommendations, but that it had so far found it most effective to focus on one policy change at a time.
- Attendees discussed a range of solutions to microplastic pollution, such as improving textile design, Extended Producer Responsibility on textiles and washing machine filters.
- It was generally agreed that there was a need for a combination of solutions, short and long term, including stopping emissions at the source, tackling wastewater treatment and in product design.
- It was noted that with regards to untreated sewage spills, there is regulation in place, but that regulators did not have sufficient funding to enforce them.
- On the use of sewage sludge as fertiliser, Dr Natalie Welden suggested limiting its use in particularly vulnerable areas and highlighted that similar rules exist for nutrient pollution in "Nitrate vulnerable zones".

- Rachel Wyatt noted that regulators were looking at updating the Farming Rules for Water, which govern the use of sewage sludge in agriculture.
- She also suggested that Water Companies needed to be incentivised to develop alternative uses for sewage sludge, while highlighting that using sewage sludge as fertiliser largely aligns with ambitions of a circular economy, if done sustainably and without pollutants.
- Professor Richard Thompson noted the importance of making sure microplastic pollution is addressed through the Global Plastics Treaty.

Public and MP awareness

The meeting discussed the need for public and political awareness.

- The group agreed that public awareness of microplastics is high, but MP awareness is lagging, especially on the specific links between microplastics and sewage/sludge.
- There was broad agreement that political will can drive swift change. Raising MP understanding could increase pressure on government.
- Proposed engagement ideas included:
 - Documentary film screening in Parliament
 - Citizen science projects involving MPs
 - Offering microplastics blood testing for MPs to raise visibility and personal connection to the issue
 - Distribution of DIY testing kits or inviting MPs to local river surveys

Private sector

Attendees discussed the importance of the private sector in developing microplastic filter technology.

- The Chair highlighted how the government had placed expectations on the private sector to develop viable microplastic filter solutions, but at the same time, there was a need for a level playing field.
- It was noted by Andrew Mullen that washing machines with microplastics filters are available but are not selling in significant numbers due to low consumer demand.
- The need to incentivise industry and drive competition and innovations was highlighted.
- Cheryl Mackrory suggested a government-run competition to foster innovation among small companies.

Proposed next steps

The Chair proposed several avenues for further work, which will be developed by the APPG Secretariat in consultation with stakeholders:

- Holding a stakeholder inquiry to update the APPG's policy recommendations and publish an update report
- Exploring ways to engage MPs, including through a blood testing event and a film screening
- Working with government to explore ways to incentivise industry innovation to make microplastics filters commercially viable.