Video summary	Before watching the video	During the video
The river begins at the confluence of Green Field Beck and Oughtershaw Beck in Langstrothdale. The Wharfe flows into the River Ouse after a journey of about 81 miles (130km) and forms the county boundary between West Yorkshire and North Yorkshire for much of its length. On its journey it passes through a variety of small villages, and larger settlements such as Kettlewell, Grassington, Addingham, Ilkley, Otley, Wetherby and Tadcaster. Like many rivers in the UK today, it is affected by pollution from many sources, one of which is human sewage. Human activity generates wastewater every day. Domestic wastewater comes from our kitchens, bathrooms, toilets and sinks. Industry also produces a lot of wastewater. This wastewater contains sewage, chemicals and nutrients that are harmful to animals and plants, so it needs to be treated before it is returned to the environment. Our wastewater travels down pipes to sewers, then to treatment plants where it is cleaned and filtered for drinking water or returned to our rivers as treated effluent. However, when sewers come under stress from heavy rainfall, water companies are allowed to relieve pressure by releasing wastewater and rainwater directly into rivers through Combined Sewer Overflow pipes, commonly known as CSOs. This is a direct cause of pollution affecting UK rivers.	Ask students what they know about river pollution. Can they name different kinds of pollution that might be found in rivers and identify where it has come from? Ask students if they think human sewage is a big problem in UK rivers and why. You might also ask students what happens to our wastewater from domestic sources and find out what they know about sewage treatment plants. The film contains some technical vocabulary so you might want to ensure students have a familiarity with the following words and terms, perhaps by creating a glossary. • Combined Sewage Overflow pipes (CSO) • Effluent • Environment Agency • Sewage • Sewer • Storm drain • Wastewater • Water Company	You may wish to stop at relevant points during this short film to pose questions and check understanding or wait until the end. Useful questions might include: • What happens to the sewer system when we get heavy rain? • What are the other factors that increase stress on the wastewater treatment system? (Increased incidence of extreme rainfall due to climate change, growing size of settlements). • What can we do in our own lives to limit wastewater debris? (An example might be to dispose of items such as wet wipes by disposing of them properly, rather than flushing them into the drains).

After watching		
• Discuss how students feel after seeing the film and ask them what percentage of rivers in England they think may be affected. Research river pollution from sewage using news sources and government reports in an effort to establish some facts about the scale of the problem. • An Ordnance Survey report in 2023 lists the following: Figures from the Environment Agency (EA), one of the UK's water regulators, show there were more than 770,000 raw sewage discharges into the ocean and rivers around the UK over the course of 2020 and 2021 – the equivalent of almost 6 million hours. • Use the interactive map from the **Rivers Trust** to investigate your own local river.		
Curriculum notes	**Where next?**	**Links**
All these short clips build on students' understanding of human and environmental interactions and provide opportunities to practice geographical skills such as enquiry, mapping and fieldwork. At KS3, students can learn more about how human and physical processes interact to influence, and change landscapes, environments and the climate. At KS4, the film supports understanding about fluvial environments, flooding hazards and climate change, environmental management and fieldwork investigation. The film might be used for example, to contribute to case studies about human interactions on fluvial environments (CCEA), or about environmental challenges (WJEC).	Students could draw a diagram explaining the cycle of water treatment using appropriate terminology and identifying weak points in the system. Ask students to explain why rivers, and the wildlife they support matter, giving examples, and identifying problems caused by discharging untreated effluent back into rivers. This work could be developed into a case study of river pollution, identifying causes, impacts and suggesting possible strategies for improvement. Plan for fieldwork to locate and investigate local CSOs and consider safe ways to assess local water quality. Thinking globally, students could go on to investigate the role of GIS in identifying sewage spills in the UK and beyond.	KS3: Rivers and Water GCSE: River landscapes in the UK GCSE: River environments GCSE: Rivers GCSE Geography - exam practice National 4: Rivers National 5: Rivers and valleys Bitesize Careers: Jobs that use Geography