River Mole catchment

The Lower Mole catchment includes clay soils, and watercourses flowing along a low gradient making it prone to flooding. The Lower Mole Flood Alleviation Scheme protects thousands of homes and businesses from flooding with a flood relief channel engineered to increase capacity. Built in the 1980's after the catastrophic 1968 flood, the EA is planning a sustainable upgrade.

The Middle Mole runs over chalk. Rainwater drains through the chalk into underground aquifers. Springs occur where the chalk meets London Clay as at Fetcham. SES Water capped the springs at Fetcham Mill Pond. Drilled boreholes supply aquifer water. Elmer Treatment Works at Leatherhead supply 160 million litres of fresh drinking water every day to over 750,000 people in parts of Surrey, Kent and South London.

We can all help to reduce pollution and flooding by reducing the amount of water we use!

HAMPTON COURT () River Thames to the sea! X Test Site **MOLESEY Sewage Treatment** Ember Lower Mole Lower Mole Molesey Works (STW) Island Barn Reservoir TOWN **River Mole** River Ember **Esher STW** Cobham Downside Bridge **COBHAM** Bookham Brook Leatherhead STW Rye Brook **ASHTEAD** River Mole Local Nature Reserve Fetcham Splash **FETCHAM** Fetcham Mill Pond **LEATHERHEAD** Leatherhead islands Mole Gap Bluebird Island & Shell Bridge Mole Gap Swanworth Farm SURREY HILLS AONB Stepping Stones, Boxhill Pipp Brook **DORKING Dorking STW** Castle Mill Pixham **BROCKHAM** Tanners Brook Betchworth Brook Merstham STW Shag Brook REDHILL Gad Brook

The Upper Mole catchment is a low-lying clay basin where streams flow from sources in the surrounding sandstone hills and wooded countryside. Eighteen tributaries join the River Mole as it heads north. Of the nine large Sewage Treatment Works in the catchment, six are in the Upper Mole. Our water testing programme conclusively demonstrates that water discharged from all STWs causes chemical pollution. E-coli has also been detected at some of the sites we 'blitz' tested throughout the catchment.

Clay soils and urban landcover promotes rapid surface run-off, causing swift rises and falls in the 'flashy' River Mole. The Upper Mole Flood Alleviation Scheme uses engineered structures that safeguard local buildings from major floods. New natural flood management methods are designed to 'slow the flow' of run-off across the catchment.

