

Brighton & Hove ChaMP for Water event – Geological Society of London, Solent Regional Group event

Portsmouth, January 2019

The latest Solent regional [Geological Society of London](#) (GeolSoc) Seminar was held at Portsmouth University in January. Around 40 people came along from as far as Oxford and Guildford to hear about ChaMP for Water, and the impact and achievements of this collaborative partnership in reducing nitrate groundwater pollution.

Simon Deacon (Environment Agency Technical Specialist in Groundwater, Hydrology and Contaminated Land) explained that Brighton ChaMP for Water was designed in response to rising nitrate trends observed at Southern Water abstraction boreholes in the Brighton Chalk Block. The principal aim of the project is to protect and improve the quality of groundwater in the Brighton Chalk, and to ensure it remains a sustainable resource for public water supply. To achieve this, actions identified and agreed collaboratively in the Environment Agency's Safeguard Zone (SGZ) action plans, the South East River Basin Management Plan, Southern Water's Water Resources Management Plan (Draft) and National Environment Programme, and the Adur and Ouse Catchment Plan (groundwater chapter) will be prioritised and delivered. This puts into practice the concept of integrated catchment management.



High nitrates in groundwater are a longstanding problem. There is a general rising trend combined with seasonal peaks during autumn/winter when higher rainfall flushes excess nitrates through soil and into groundwater. Within the Brighton Chalk block 7 of the 13 Southern Water abstraction boreholes have reached the Drinking Water Inspectorate threshold at some point. This requires additional treatment, blending of sources or taking a borehole out of production. Increasing nitrate burden and associated cost of treatment is putting some sources at risk, potentially jeopardising long term sustainable water supply.

Catchment schemes to deliver reductions in nitrate leaching in to the environment are therefore essential. One measure we are trialling and promoting on a catchment scale is cover crop planting after summer harvest. This reduces leaching of nitrates into groundwater as well as the benefiting the soil by reducing erosion, improving soil structure and increasing biological and organic levels. We hope to offer cover crops to all arable farmers in the whole of the catchment.

ChaMP is made up of the Environment Agency, Southern Water, South Downs National Park Authority, Brighton & Hove City Council and the University of Brighton, working together with the Brighton and Lewes Downs Biosphere and Natural England.