

# Bramley Investigation Summary



EPS were engaged at the end of May 2023 to provide support in Bramley. Previous works completed by a third-party have recorded fuel (likely petrol) beneath the petrol station, but the exact cause has not been defined. EPS were also made aware of odours along the main road and fuel sheens in the stream.

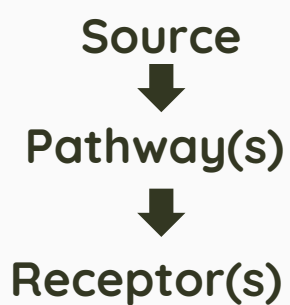
The situation is complicated and EPS are working hard to develop strategies to manage the problem and design remediation systems.

This non-technical summary outlines the works undertaken to date and 'next steps'.

## 1.Understand the Problem

In contaminated land assessments we need to establish the source, pathways and receptors so we can effectively assess the risk.

First, EPS reviewed available information and attended site for observations. We regularly meet with the Environment Agency (EA), Petroleum Officer, Waverley Borough Council and Surrey County Council. We have also engaged with Thames Water and local businesses.



From this work, EPS developed an investigation strategy to assess soil and groundwater at the petrol station. Current records indicate that there is not an ongoing leak, so it appears that we are managing a 'legacy issue'

## 2. Incident Response

*Manage 'Receptor' Impact*



It became clear that the stream was being impacted during rainfall so we treated it as an incident response. To reduce downstream flow of fuel our specialists installed a fuel absorbent 'boom' in the stream, which is maintained regularly. We also engaged with the Fire Service to ensure that there was not an acute risk.

## 3.Site Investigation

A number of investigations have been undertaken in the past, therefore, some boreholes existed already.

However, an additional phase of investigation was undertaken to install new boreholes and upgrade the infrastructure in existing boreholes for future remediation.

The drilling works allowed sampling of soils and groundwater for risk assessment and to support initial remedial design. As expected, fuel was encountered on groundwater in some parts of the site.

*Understand the 'Source'*



*Understand the 'Pathways'*



## 4.Off-Site Utility Survey

It was suspected that local utilities (telecoms, drains etc) have been impacted and may even act as a pathway to the stream.

Therefore, we have undertaken a utility survey of the surrounding area. We worked through the night(s) to lift access chambers and attempt to trace the routes and assess whether fuel vapour was present. We were not given access to foul sewers but we are looking to assess on another date.

This work has confirmed that fuel does flow through drains towards the stream. The next step is understanding how it gets into the drains and if/how we can stem that flow of fuel.



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## Next Steps

### 1. Development of Remedial Strategy

At the time of issuing this summary, we have two key areas that we are working on:

Firstly, pilot trials are being coordinated to develop an effective and sustainable method of removing fuel from the ground. This is being undertaken in line with industry best-practice and we will coordinate with the EA to get all the relevant permits. This is the first step for source management.

Secondly, as of September 2023, we are liaising with Surrey County Council Highways team to gain permission to put fuel absorbent pads in the drains to intercept fuel before it gets to the stream. This is ongoing and represents further management of pathways, similar to the boom in the stream.

### 2. Off-Site Boreholes

We are trying to understand how and where fuel is getting into the drains.

We have submitted plans for drilling in road verges between the petrol station and the stream. This is a licensed activity, so we need permits from Highways.

We are being supported by Waverley Borough Council to find other suitable areas of land where boreholes could be placed.

### 3. Ongoing Liaison

We continue to have regular meetings with the Environment Agency, Petroleum Officer, Waverley Borough Council and Surrey County Council to appraise them of findings and update them on plans. We also want to understand the sewer network, so as a group we are speaking to Thames Water. One of the first things we did was complete an aerial survey of the area using a drone, we are now using this survey output as a tool to communicate and log key areas. This centralised system is supporting our team and the stakeholders we engage with.

### 4. Going Forward

For nearly 25 years, EPS have worked on complicated contaminated sites, including similar incidents to Bramley. We are specialists in fuel contamination, which is why we have been brought on board. We are working hard in the background to piece together a complicated jigsaw.

The resolution has to be robust, well-considered and sustainable. We are aiming to implement the fastest fixes we can through installation of fuel absorbents and other short-term solutions. We are also in the design phase for source remediation.

