



Listed Historic  
Estate, UK  
Spill Response,  
Investigation &  
Remediation Works

Case Study

**REDS**

## Project Scope

Our client reported a 1500-litre red diesel fuel spill following a theft from a storage tank.

The location was a compound used for servicing a historic estate and associated park and gardens. The fuel had entered an adjacent stream which fed into a private fishing lake and local river, all of which were designated habitats for protected species.

Specialist response, environmental project management and remediation was provided by REDS Group through emergency continuous risk assessments, containment works, options appraisal and remediation operations.

All site works and updated environmental risk assessments were reported on a daily basis.



## Project Works Response

Due to the potential severity of the spill, and as per REDS' contractual agreement with our client, the REDS Group Regional Response Vehicle (RRV) and responder arrived on site within three hours of the authorisation to respond, with additional authorised responders and environmental consultants arriving on site within 24 hours.

As the client's on-site staff had undertaken spill response training prior to the incident, the correct spill mitigation procedures had been implemented immediately upon discovery of the incident. This ensured that the impact of the spill had been minimised to the immediate area, and not beyond into open waterways and further environmentally sensitive areas prior to REDS' arrival on site.

Once REDS' RRV and initial responder arrived on site, fuel absorbents and barrier booms were placed in the path of migration to prevent further impact of fuel oil. These containment measures bolstered the prevention measures installed by site staff. The storage tank was also checked over and secured, as well as all site drainage in the immediate area.

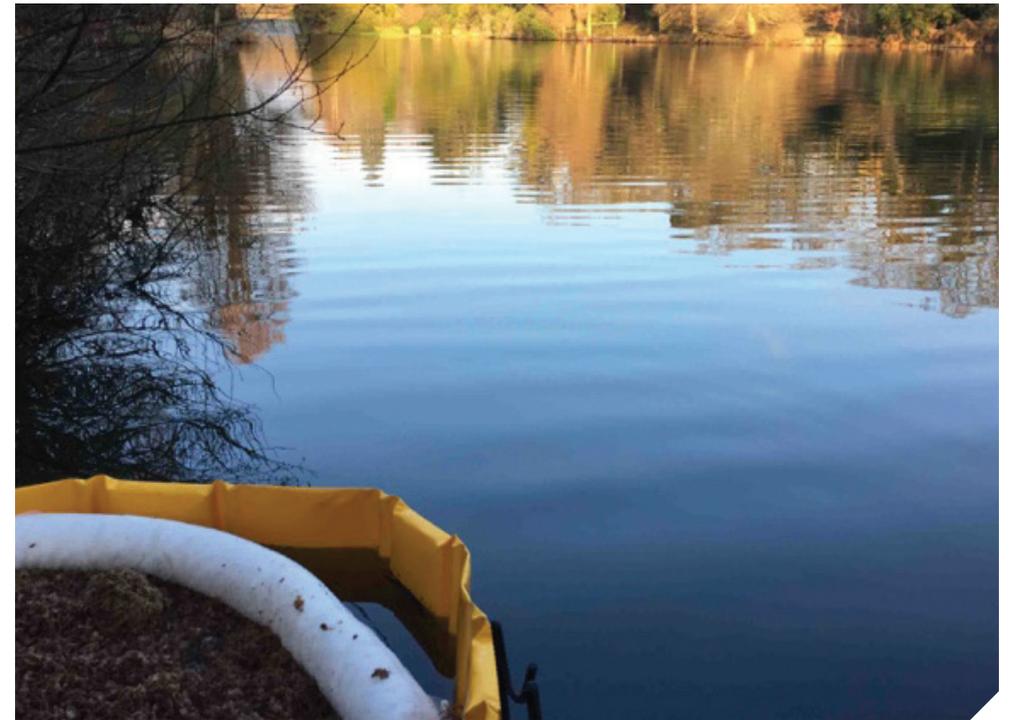


## Project Works Risk Assessment & Investigation

REDS Group's Phase 1 site sensitivity report, created within four hours of mobilisation, identified the site to be within a Drinking Water Safeguard Zone, an important habitat for Great Crested Newts and used extensively for recreation, especially fishing.

Once containment was secure, a detailed investigation from the source of the spill downstream to the open waterways was undertaken to assess the risk and the receptors, and to plan appropriate mitigating actions.

This investigation included chemical analysis of surface water and sediments, visual inspection of the river network and analysis of Volatile Organic Compounds within adjacent buildings.



# Project Works Remediation & Verification

To prevent migration and, therefore, to protect the Drinking Water Safeguard Zone, amenity value and ecology, a remediation strategy was created and agreed upon by the Environment Agency and the client.

The remediation strategy implemented three techniques:

Removal of contaminated organic matter and sediment

Uplift of free-phase fuel

Removal and replacement of saturated absorbents

Continued testing and monitoring of impacted areas until results show agreed levels

Alongside the remediation strategy, monitoring was undertaken to qualify and quantify the remediation's effectiveness.

This included visual monitoring to identify the migration of free-phase fuel, and chemical analysis of the water quality to identify dissolved contaminants. During this monitoring, and due to contamination removal activities by REDS Group, a reduction in contaminants was observed, resulting in acceptable levels when compared to Environmental Quality Standards as agreed by the Environment Agency and the client.



## Project Works Results

Through REDS Group's response and risk assessment, a remediation strategy was implemented to protect environmental and human health receptors from the loss of 1500 litres of diesel into a water course.

Risk to these receptors was reduced through limitation of the fuel's migration, and its removal, through three complementary remediation techniques. This was proven, through a verification strategy, to have reduced risk to sensitive receptors to acceptable levels. required, allowing the work to be carried out to a high standard and to exceptionally high safety standards.



## CONTACT REDS

At REDS, we believe our people are our strongest asset.

Our in-house proficiency and experience ensure that all projects are delivered in accordance with current legislation, on time, within budget and often exceeding expectations.

For more information about any of our services or to obtain a quotation for your project please call us on 0333 444 0004 or email [contact@redsgroup.co.uk](mailto:contact@redsgroup.co.uk)

### Accreditations

REDS Group are proud to be UKAS ISO 45001, ISO 14001 Certified and ISO 9001 Certified.





Environmental  
Risk Management

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