Environmental Guidance Note

Identifying and Protecting Watercourses and Drainage

Links to relevant SHEMS Standards, Minimum Standards and Forms

Links to relevant guidance (SHEMS or external)

Contact the relevant environmental manager or adviser for more information.

SHEMS-STD-GR-063 Pollution and Nuisance

SHEMS-REG-GR-005 Legal & Other SHE Register

Permits and Authorisations (England & Wales)

Permits and Authorisations (Scotland)

Purpose

Kier must ensure that the water environment is protected from pollution impacts from our activities. This means understanding what water systems could be impacted and how sensitive they are, planning activities to avoid pollution risk and monitoring works to ensure controls are effective.

Permits or consents may be required from various regulators to undertake works in or near, or to discharge to, watercourses or drainage systems.

This guidance is aimed at Kier employees involved in planning work activities or tasks in or near watercourses, or planning activities that include discharges to watercourses.

Guidance

Kier activities vary from working on temporary fixed sites for long periods, to short-term emergency works on highways etc. In all cases, steps must be taken to prevent pollution of the water environment. Identifying the potential sources of pollution, pathways by which this can reach watercourses and the type / sensitivity of the watercourse it may reach (the 'receptor') enables planning of activities to avoid pollution.

Checking for watercourses and drainage

Basic checks for the presence of watercourses must be made where activities are planned in or around watercourses and sewer system, or if discharges are planned. These may require a permit or consent from the relevant regulator.

	Definition	Regulator	Information Sources
Watercourse	Includes all rivers and streams and all ditches, drains, cuts, culverts, dykes, sluices, sewers (other than public sewers) and passages through which water flows.	Various	
Main River	Watercourse shown as such on main river maps held by Defra and Welsh Government.	Main environmental regulator e.g. Environment Agency, SEPA, NRW, NIEA.	England Main River Map Scotland River Information Wales River Map Northern Ireland River Map
Ordinary Watercourse	A watercourse that does not form part of a main river.	Local Lead Flood Authority (LLFA) except where there is an Internal Drainage Board (IDB). Usually, the local authority acts as the LLFA.	
Public sewer	A sewer owned / managed by a sewage undertaker (local water authority). May be a foul sewer or a combined sewer (sewage and surface water).	Water authority.	
Culvert	A covered channel or pipe designed to prevent the obstruction of a watercourse or drainage path by an artificial construction.	Usually the LLFA / IDB or water authority.	
Groundwater source protection zones	Defined zones around large public drinking water abstraction sites.	Main environmental regulator e.g. Environment Agency, SEPA, NRW, NIEA.	Magic Map (England)*
Drinking Water Protected Areas (Surface Water)	Where raw water is abstracted from rivers and reservoirs.		
*Table of contents: Designations>Non-statutory>Source Protection Zones merged (England) / Drinking Water Protected Areas			

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Site drainage plans

For construction sites and premises under Kier control, a site drainage plan should be developed showing locations of drainage (surface water drains, soakaways, land drains, foul water and combined sewers) and watercourses and potential sources of pollution e.g. fuel / oil storage, soil stockpiles, contamination, COSHH storage etc. This can be in the form of an environmental site constraints plan.

The location of drain runs should be established, including whether they discharge to foul sewers, combined sewers or surface water systems (including ditches, streams, culverts etc.). The integrity of existing drains should be checked if they are to remain in use, particularly where foul and surface water drains cross over or are located close by to each other and surface water drains discharge to watercourses of any description. Drain integrity can be checked by dye tests or CCTV.

After the first inspection, drain integrity should be checked every five years that Kier occupies the construction site or premises. Records of initial and periodic inspections should be made.

Oil interceptors, separators and silt traps should be identified on site drainage / environmental constraints plans. Any watercourses including rivers, streams, ditches on or adjacent to site should also be marked.

Drains should be colour coded on site as follows:

- Surface water drain - blue
- Foul drain - red
- Combined drain - red ‘C’
- Interceptors - orange

Drain covers or protection should be used on drains in sensitive areas. Surface water run-off contaminated by silt, heavy metals, chemicals, sewage or oil must not be allowed to enter surface water drains or watercourses.

It should also be established if any of the surface water drains discharge directly into any nearby watercourse. Where this is the case, measures to be taken in the event of a spill to prevent pollutants entering these watercourses e.g. providing drain covers or placing a boom across the point of discharge, must also be included in the environmental management plan or premises register. Contaminated surface water must not be allowed to enter surface water drains or watercourses.

Attention must also be given to preventing pollution of land from Kier activities, as remediation following contamination from polluting substances can be both difficult and expensive.

Further Resources

Working in or near Watercourses

Fuel and Oil Storage - above ground

Refuelling

Working on Fuel Tanks and Lines

Chemical and Paint Storage

Wheel Washing and Vehicle Cleaning

Managing Concrete Wash Water

Pumping Out Excavations

Spill Response

Using Pesticides and Herbicides in or Near Water

Spill Products Brochure (supplier not mandated)

Spill Training Brochure (supplier not mandated)

Spill Response Training Video (note new call-out number 0800 592 827)

Classifying and Recording Environmental Incidents