

KNIGHTS BROWN ENVIRONMENTAL MANAGEMENT PLAN

S000082 Hendy, Eastleigh

Environmental Management Plan

	Name	Designation	Signature	Date
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Amendment List

Rev	Date	By	Site	Client	Description of Modification

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Appendix B: Environmental Components of General Method Statement

Appendix C: Assessment of Environmental Impacts

Appendix D: Environmental Action Plan

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1 Scope of the Construction Environmental Management Plan

- 1.1 The scope of the Construction Environmental Management Plan (CEMP) covers the activities and operations under the control of Knights Brown or subcontractors during the works.
- 1.2 The CEMP forms one component of the Project Management Plan and should be read in conjunction with the Site Project Phase and Quality Plans. The requirements of this plan apply to the whole project team, including all contractors and sub-contractors involved in the works under the control of Knights Brown.
- 1.3 The CEMP is supported by the Knights Brown, Information Management System (IMS).

2 Scheme Environmental Policy

Policy

- 2.1 The Knights Brown Environmental Policy Statement will be applicable and applied through this Construction Environmental Management Plan. Knights Brown's Environmental Policy Statement is available on the IMS, company intranet Sika and site noticeboards.
- 2.1 This current policy statement is also provided in Appendix A.

Aims

- 2.2 The overall aim of the Construction Environmental Management Plan (CEMP) is to ensure adequate management resource is provided to minimise the detrimental environmental impact of the works to ensure the smooth delivery of this project, taking cognisance of the environmental sensitivities of the location.
- 2.3 A key issue is that appropriate training is given, and adequate resources are available to ensure that environmental responsibilities are discharged. Employees are required to take reasonable care of the environment in addition to their health, safety and welfare and that of others who may be affected by their acts.
- 2.4 All personnel are required to understand and implement the requirements of the CEMP. The aims, policies and procedures described in this plan will regularly be reviewed and revised as necessary.

3 Project Description

3.1 General Description of the Works

The works comprise of three vehicle showrooms and a combined service workshop. Ground floor includes the workshop and two car showrooms, first floor a commercial vehicle showroom. Ancillary offices and welfare facilities are situated at ground, first and second floors. In addition, the development will provide structures to house an independent two deck car park, a car wash facility, parking, service yards, drainage, landscaping and incoming services.

3.2 Anticipated commencement date: 28/11/2022

3.3 Duration: 46 wks

The overall works programme is included in Appendix H

4 Contractor Requirements in relation to Planning Conditions

4.1 Development shall not commence until a Construction Environmental Management Plan (CEMP) covering the following matters has been submitted to and approved in writing by the Local Planning Authority:

- Mechanisms to ensure that there is no pollution of the nearby Monks Brook;
- A programme of and phasing of construction works;
- Provision of long term facilities for contractor parking;
- Arrangements for deliveries associated with all construction works;
- Methods of construction works;
- Access and egress for plant and machinery;
- Protection of pedestrian routes during construction;
- Location of temporary site buildings, compounds, construction material, and plant storage areas;
- Details of the methodology for ensuring dirt is not transferred onto the highway from the site.

5 Significant Environmental Impacts

- | | |
|-----------------|---------------------------------|
| • Water Quality | - sedimentation of watercourses |
| • Water Quality | - pollution of watercourses |
| • Nuisance | - noise & vibration |
| • Nuisance | - traffic movements |
| • Nuisance | - mud on road |
| • Nuisance | - contractor parking |

Management of Significant Environmental Impacts

Refer to Environmental Management Plan – Appendix D

6 Structure and Responsibilities

Management Structure

- 6.1 The following appointments have been made in accordance with The Construction (Design and Management) Regulations 2015 and this Construction Environmental Management Plan:

Contracts Manager: Ben Alford

Site Manager: Terry Churchill

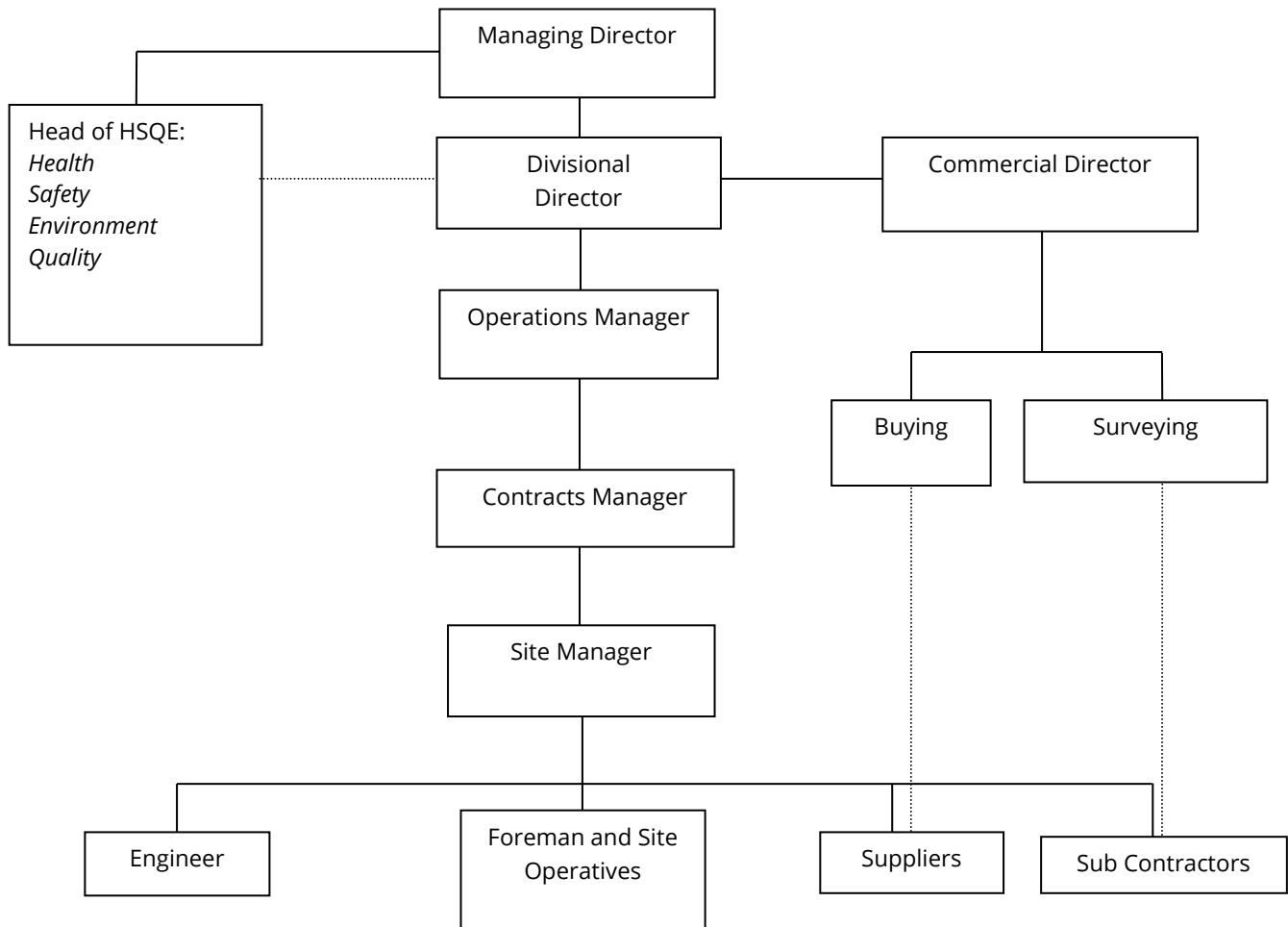
Building Manager TBC

Principal Contractor: Knights Brown

- 6.1 As Principal Contractor, Knights Brown. will apply its own management framework to undertake the proposed works, reporting directly to the Site Manager.
- 6.2 Responsibility for all environmental issues relating to the proposed development falls to the Knights Brown Site Manager. Individual responsibilities will be allocated throughout the Knights Brown management team relating to inspection, sampling or reporting. Individual responsibilities are outlined below.

Typical Contract Organisation Chart

6.3 The following chart illustrates how the project team will be organised.



Individual Responsibilities

- 6.4 The duties of the Site Manager and other personnel are as detailed below.
- 6.5 The Site Manager reports directly to Knights Brown Contracts Manager and is responsible for:
- the establishment and implementation of the Construction Environmental Management Plan
 - identifying all environmental effects associated to the project
 - setting environmental objectives and targets
 - environmental works programming
 - legal and contractual compliance by ensuring the appropriate licenses, certificates and procedures are in place
 - ensuring Knights Brown staff and sub-contractors receive training on project specific environmental issues

Other Specialists

- 6.6 Relevant specialists will be employed if necessary, during the project to undertake watching briefs or undertake surveys and advise the construction staff. CVs of all specialist staff proposed would be submitted for approval.

All Staff

- 6.7 All staff working on the contract would have responsibility for complying with the provisions of the EMP and any subsequent environmental control measure. This responsibility shall be communicated during the general site induction.

7 Environmental Action Plan

- 7.1 An Environmental Action Plan has been developed to outline the key management actions, responsibilities and timescales necessary for the achievement of the objectives and targets.
- 7.2 The complete Environmental Action Plan can be found in Appendix D. The action plan is referenced as an appendix to this plan to aid revision and adjustment as the project progresses.

8 Training

- 8.1 A training regime will be implemented to ensure that all members of the construction team, including client personnel, staff and employees, sub-contractor's personnel and major suppliers, receive focused environmental training to ensure their competence in carrying out their duties on the project.
- 8.2 Any environmental training shall be extra to the training requirements of the Knights Brown Occupational Health and Safety Management System.

Environmental Induction

- 8.3 A general environmental induction shall be developed to introduce all site personnel to the environmental issues connected with the project, important environmental controls associated with the day to day operation of the project e.g. water pollution, boundary control, waste management, drip trays etc, and the general emergency procedures. A full register of induction attendance shall be maintained on site, in accordance with data protection regulations.

Toolbox talks and method statement briefings

- 8.4 Toolbox talks and method statement briefings will be given as the work proceeds and will cover the environmental controls related to specific activities undertaken during the works for example refuelling. A full register of toolbox talk or method statement briefing attendance shall be maintained on site.

Emergency Procedures and Incident Response

- 8.5 General procedures for addressing spillage and ecological or archaeological incidents will be included in the general site induction; specific toolbox talks however will be delivered to ensure operatives are aware of any extra emergency procedures. For example, work on some areas could require the use of booms or sedi-mats to control a possible incident. The procedures for deploying such measures will be affected by the local conditions and may require location specific training.

Specialist Training

- 8.6 Specialist training relating to certain environmental aspects will be developed and delivered to key members of the site team as required throughout the project. These talks are likely to cover topics including managing ecological incidents, spill control and assessment and site water flow.

Training Records

- 8.7 All training records will be maintained and filed by HR on Merlin (company online records system). The records shall include the content of the courses (induction and toolbox training), record of attendance and schedule of review.

9 Communication

Written Correspondence

- 9.1 All correspondence between members of the project team relating to environmental issues shall be written/emailed/confirmed on CVI.

Progress Meetings

- 9.2 To ensure all members of the protect team are kept informed of the construction work, there will be an environmental component in the monthly progress reports and meetings. Performance against the environmental objectives and targets can be reviewed at these meetings.

On site communication

- 9.3 A full contact list containing names, job titles and contact numbers shall be produced and maintained. On site communication, will be provided by mobile telephone

External communication

- 9.4 External connections shall be established and maintained for the works.

10 External Reporting and Community Relations

Statutory Authorities and Interested Parties

- 10.1 The Site Manager will be responsible for the liaison on environmental matters with statutory and non-statutory authorities.

Complaints

- 10.2 On site, the manager in charge or designated community liaison is responsible for handling and resolving complaints.
- 10.3 Those received by offices should be directed either to the divisional marketing & communications manager or the head of marketing & communications.
- 10.4 A Complaints log shall be maintained and reviewed regularly to identify any changes to management procedures or operational controls to mitigate causes of complaints wherever possible. All complaints will be recorded in the Considerate Constructor Site file.

11 Operational Control and Incident Response

Pollution Prevention

11.1 A statement on general pollution prevention will be added to each method statement outlining the generic pollution prevention measures to be applied throughout the works. This method statement will relate to the following issues

- Fuel storage and refuelling procedures
- Operation of plant and equipment
- Dust mitigation
- Noise mitigation

Pollution Incident Response

11.2 Pollution Incident Response Plans shall be prepared wherever necessary, to cover the potential pollution risks generated from the construction activities. Each pollution incident response plan shall include:

- Step by step procedure for assessing and containing the spillage
- A list of equipment and its location
- Emergency contact numbers and reporting procedures, including the relevant EA, and NE contact numbers.

11.3 General procedural templates shall be used for the formation of these plans, however, at certain locations throughout the site extra precautions will need to be taken and the standard pollution procedures will be varied accordingly. The standard and site incident response procedures are available in Appendix E.

11.4 The Knights Brown HSQE Advisor will inspect the implementation of pollution response plans. Failures in implementation will be reported in the Safety and Environmental Report Log.

11.5 All pollution incidents shall be logged and reported to the Site Manager who shall be responsible for reporting to Knights Brown Senior Management, and HSQE department.

11.6 The construction activities could generate interactions with existing ecological and land use resources.

11.7 Method statements will outline the main operational controls applied at each location or activity to control possible detrimental impacts in accordance with the Environmental Action Plan. Specific operational controls will be communicated to the workforce through method statement briefings or toolbox talks.

11.8 Knights Brown will maintain watching briefs during any 'high risk' construction works.

Land use and Disruption

11.9 A works boundary will be maintained at all times. Permission for any temporary land take outside the footprint of the permanent works will be obtained in writing from the client prior to works commencing.

12 Procurement and Control of Sub-contractors and Suppliers

- 12.1 All subcontractors will be required to undertake site work in accordance with this CEMP and its supporting documents. All site operatives will be required to attend an induction which will include a section on the environmental aspect of the project.

Procurement

- 12.2 The procurement of sub-contractors and suppliers is conducted in accordance with the sub-contractor procurement procedure and the supplier database. The following information in this section summarises procedural requirements for the purposes of the reader. IMS procedures will take precedence over this section of the CEMP.
- 12.3 The vendor assessment questionnaire would be reviewed as part of the subcontract or order evaluation procedure and the Knights Brown buyer will determine whether the subcontractor or supplier's environmental commitment, awareness and performance is adequate for the requirements of this project.
- 12.4 A pre-let meeting shall be held between the subcontractor or supplier and the Knights Brown Site Manager prior to contract award. Site-specific environmental issues and the proposed control measures will be discussed and reviewed during this meeting. The minutes to pre-let meetings shall be filed in accordance with the Project Filing Index.

Performance Monitoring

- 12.5 The Site Manager will monitor the performance of subcontractors or suppliers. Any significant underperformance or re-occurring breaches of controls will be reported immediately to the Knights Brown board that will take appropriate action.

13 Document Control and Records

- 13.1 Documents relating to the CEMP, their issue, revision, storage and archiving would be in accordance with the Project Quality Plan.
- 13.2 The following environmental records shall be maintained on site:
- Contract documents
 - Consultation with statutory authorities
 - Relevant consents, licences or authorisations
 - Minutes of meetings
 - Survey or monitoring records
 - Incident reports and corrective actions
 - Induction records
 - Complaints log
 - Waste management documentation
 - Audit and inspection reports

14 Audit and Inspection

- 14.1 An auditing and inspection regime shall be defined and maintained to ensure the continued compliance of the construction works with policy, the contract conditions and relevant legal requirements.
- 14.2 The results of environmental inspections and audits shall be reported to the Site management team and Knights Brown board. The results can be made available to the Client's Project Manager.

Site Inspection

- 14.3 Weekly inspections of the works shall be undertaken by a nominated member of the site staff to ensure the continued compliance of site operations with the provisions of this plan and control measures outlined in relevant method statements.
- 14.4 Audits will be carried out on a regular basis to ensure sub-contractors and site operatives are operating in compliance with this plan and are aware of incident response procedures.

Internal Inspection

- 14.5 Periodic inspections/audits by the HSQE Department shall be carried out. The scope of environmental inspections will cover the compliance of site-based operations with the requirements of this plan, the contract, the law, Knights Brown minimum standards and progress against any corrective actions. Any non-conformities and actions arising from monthly inspections will be detailed in the report and their close out monitored by the Site Manager.
- 14.6 Senior Knights Brown Management are included on the distribution of any reports generated and will assist and monitor close out.

Procedures in the event of failure to comply with requirements of CEMP

- 14.7 If an audit shows that the requirements of the CEMP are not being met, the HSQE department would agree details of corrective actions required with the site team and agree a timescale for it to be implemented.
- 14.8 The root cause for the non-compliance would be identified and the procedures modified to remove this underlying cause. There shall be a determined effort to cure the problem and not superficially treat the symptoms.
- 14.9 If the procedures are adequate but have not been implemented such that there is a potential risk of pollution etc. a Non-conformance Report (part of the Integrated Management Systems) shall be raised and only closed out with the agreement of the auditor. An NCR can be raised by an auditor, or Safety and Environmental Advisor. NCRs will be recorded in the site Safety and Environmental Report Book.

15 Reviews and Close Out Report

- 15.1 A review of the overall effectiveness of this Plan would be carried out at least every 3 months by the Site Manager and procedural revisions changed accordingly. Any change to this plan will be submitted to the Project Manager for authorisation.
- 15.2 Information for the review will be gathered from the results of the inspection regime, regular progress meetings and environmental audit results.

Closeout Report

- 15.3 A closeout report would be compiled by the Environmental Officer upon completion of the construction phase of the project.

Appendix A

Knights Brown Environmental Policy Statement



ENVIRONMENTAL POLICY STATEMENT

While believing that our construction projects will ultimately enhance the built environment, Knights Brown recognises that the activities associated with these projects have the potential to affect the natural environment.

We will, therefore:

- Ensure our processes continue to meet the certification requirements of ISO 14001:2015.
- Keep up-to-date and comply with all environmental legislation, codes of practice, technical advances and customers' requirements.
- Support our customers and designers to improve the whole-life environmental performance of the construction projects that we are involved with.
- Adopt appropriate best practice examples from our customers, suppliers, regulators and industry sector in our aim of continual improvement.
- Set ourselves objectives and targets including where practicable, quantitative targets, to demonstrate continual improvement in our environmental performance.
- Each year, achieve and continually improve the environmental objectives and targets we have set.
- Provide training for employees and information to subcontractors and suppliers so they can help us achieve our environmental objectives.

This policy statement is brought to the attention of all employees and other interested parties. It is reviewed not less than annually or more often as required.



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Appendix B

Environmental Components of Method Statements

Environmental Components for Method Statements

The following considers the main parameters of the natural environment that could potentially be impacted by the construction works together with a summary of the methods that will be used in mitigation of any impacts caused by the planned construction. However, for specific identified environmental risks and methods of risk reduction / mitigation, see Appendix C Environmental Action Plan & Appendix D Environmental Management Plan

These measures will be implemented and maintained throughout construction methodology as a matter of standard. If variations are required, these shall be defined in the particular method statement and in consultation with the Site Manager and (where applicable) the Client's team.

The Local Authority should be informed of the project start date and completion date so that monitoring/inspections can be arranged as the work proceeds. The LA will be provided with a copy of this CEMP, and with the main works programme, including any major changes as work progresses.

1. Water

1.1. Fuel and Lubricants, and other chemicals

- Fuel and Lubricant use and storage – All fuel and lubricants on site will be stored in double-bunded containers, either at the Construction Compound, or through use of a mobile bunded bowser for refuelling on site. Wherever recommended and accepted by the plant manufactures, biodegradable lubricants will be used. Spill kits will be available and re-stocked as necessary at each storage point and with the refuelling bowser. Any fuel or lubricant waste arising from normal operations and/or any spills will similarly be stored in a special waste container and held on site until being disposed of through a licensed waste handler.
- Refuelling will be from a bunded bowser with both plant and bowser in the same area to minimise penetration or spread of any spill. Only trained operatives will be permitted to carry out refuelling. Spill kits will be available with the bowser. The bowser will be equipped with a non-locking trigger nozzle to prevent dangers of overflow. Any spills occurring will immediately be reported to the Senior Site Manager and further action taken as directed in the Site Pollution Incident Response Plan (Appendix E).
- Plant servicing will take place in the site compound, with the appropriate use of drip trays and spill kits as necessary. Waste products and materials will be stored on site in a special waste container or removed from site by sub-contractors carrying out the servicing for responsible disposal. Plant servicing personnel will have to enter the site and be inducted in the normal way at their initial visit to the site.

2. Concrete

- Concrete will be batched offsite and transported to site in standard concrete wagons. Washout will occur on site, using a large skip or tank at or near each pour location. Skip contents will be transported offsite for responsible disposal.
- Concrete pours will take place under close supervision. Any spill out from the shuttered area will be cleared up immediately, the waste product being placed within the construction area, or into the mobile skip at site. The delivery chute will be swept clean into the pour before departure, and any tools used in the pour washed over the site skip.
- Any waste concrete will be cleared up as above, or placed in the skip once it has gone off and can be collected without further spread.

3. Air

3.1. Noise

- Operating plant noise will be kept within the standards and time periods dictated for the different parts of the site. Any non-complying plant will be stopped and stood down until it can be rectified or removed from site.
- All pneumatic tools will be fitted with silencers or mufflers.
- All plant be checked daily and equipment will and maintained correctly to limit noise.
- Local hoarding or screens will be used to limit noise where possible.

3.2. Dust

- Haul route surfaces may generate dust under plant movement and in dry weather. If this proves to be the case, water from an appropriate source will be sprayed onto the surfaces to limit dust generation.
- Vehicles transporting materials to and from site will be sheeted.
- Speed on site will be limited to 10mph.
- Road sweepers will be used at access points

3.3. Exhaust gases

- Plant and vehicles on site will be maintained to the standards dictated for the site. Any non-compliant plant will be stopped and stood down until it can be rectified or removed from site.

4. Wildlife and Vegetation

Initial ecological habitation has been undertaken by the Client, who will also undertake a watching brief during the works. Certain areas have been identified where contractor access is prohibited / restricted to protect wildlife and local fauna / trees. These areas will be securely fenced prior to major construction works taking place.

5. Waste

- Construction waste will be cleared by means within the site compound. Skips will either be closed, or netted if required to prevent waste being blown out on the site. Skips will be emptied and maintained as necessary by a licensed waste handling contractor.
- Surplus spoil will be 'mucked-away' via a licensed waste handling contractor to a licensed disposal point.
- Personal waste will be kept to a minimum through creating awareness of landscape values, the local residents' quality of life, and the prevention of pest and disease build up. Skips will be used, and small containers made available in the offices. The Site Manager will ensure that these containers are emptied regularly as needed.
- Sewage from the initial welfare unit will be disposed via tanker collection, until a main sewer connection is installed with the main site cabins.

6. Biodiversity

The objective of the CEMP is to protect, conserve and enhance the natural habitats/species of the site and the aim of mitigation is to ensure there is no overall decline in the biodiversity and ecological value of the site.

7. Cultural Heritage

It is not anticipated that there are any archaeological sensitive features within the site boundaries. However, the following outlines the procedures which should be followed in the event of an unexpected find or discovery.

- Immediately stop works in the area of the find
- Protect the find and the area surrounding by fencing/blocking off and immediately contact the site manager
- Contact the Local Authority archaeological department and obtain advice on how to proceed
- All significant finds must be reported

Appendix C

Assessment of Environmental Impacts

Identification and Assessment of Environmental Impacts

Assessment Process

In assessing each activity the following has been considered:

- potential impacts on flora, fauna, existing habitats and vegetation
- potential impacts groundwater quality, availability and flow
- potential impacts on the landscape quality and character, including views
- potential impacts on local cultural heritage, including archaeological features
- potential changes in air quality, including CO₂, NO_x SO_x emissions
- potential nuisances for local people such as noise, dust and dirt on roads
- potential impacts on traffic and transport and impacts of site vehicle traffic
- waste management, including disposal, minimisation and off-site works
- site security and storage of materials, especially hazardous materials

Assessment of Significance of Impacts

To evaluate the significance of the impacts, a consideration is made of the importance to the environment and business, together with the probability of the consequences occurring. The importance of an impact and the probability of its occurrence are evaluated below in terms of a combined Importance/Probability matrix (see overleaf). This matrix assigns a value to the combined effect of Importance and Probability. These rankings would be taken into account in determining the control measures required.

TABLE A: IMPORTANCE

VALUE	IMPORTANCE	
5	Very High	Immediate and/or long-term catastrophic harm/severe breach of legislation or policy/catastrophic business loss.
4	High	Immediate and / or long term severe harm/breach of legislation or policy/severe business loss.
3	Moderate	Short Term harm/ temporary or occasional breach of legislation or policy/ moderate business loss.
2	Slight	Limited short-term harm/ minor breach of legislation or policy/minor business loss.
1	Negligible	No or trivial harm/ no or trivial breach of legislation/ no or trivial business loss

TABLE B: PROBABILITY

VALUE	PROBABILITY
5	Almost Certain
4	Likely
3	Occasional Chance
2	Unlikely
1	Improbable

TABLE C: IMPORTANCE - PROBABILITY MATRIX (to give Priority Rating)

IMPORTANCE	Very High	5	10	15	20	25
	High	4	8	12	16	20
	Moderate	3	6	9	12	15
	Slight	2	4	6	8	10
	Negligible	1	2	3	4	5
		Improbable	Unlikely	Occasional Chance	Likely	Almost Certain
PROBABILITY						

Note – When assessing the priority rating; the higher the number, the higher the priority the potential impact on the environment is to be given.

TABLE 1: ENVIRONMENTAL IMPACTS

Impact Ref. No.	Potential Impact	Construction Phase	Sensitive Receptor	Importance Score	Probability Score	Priority Rating	Objective Ref.
1	Water quality: Sedimentation of watercourse from surface run-off	All phases (surface run-off) • Material movements • Concrete pours • Operation of compound areas	All watercourses, including Monks Brook	4	4	16	1
2	Water quality: Pollution of watercourse from spillages entering drainage systems	All phases • Spillages • Plant breakdown	All watercourses, including Monks Brook	4	4	16	1
3	Air quality: Dust	All phases • Excavation • Vehicle movements • Movement of materials	Construction staff, local residents, business and amenity users, wildlife	2	4	8	2
4	Air quality: Exhaust emissions	All phases • Site plant and equipment • Associated road traffic, delivery vehicles and staff vehicles	Construction staff, local residents, business and amenity users, wildlife	2	5	10	2

Impact Ref. No.	Potential Impact	Construction Phase	Sensitive Receptor	Importance Score	Probability Score	Priority Rating	Objective Ref.
5	Ecology: Permanent habitat loss	All phases Construction of buildings, hard standings, roads, paths	Habitats and wildlife (including invertebrates, birds, mammals)	2	4	8	3
6	Ecology: Damage to existing habitats, flora or fauna (including nesting birds)	Site clearance work Environmental Improvement Works	Habitats and wildlife (including invertebrates, birds, mammals)	3	4	12	3
7	Ecology: Damage to protected flora within works boundaries	Site clearance work	Trees	4	3	12	3
8	Archaeology: Discovery of unrecorded archaeological interest	Phases of project involving excavation	Buried archaeological features	5	2	10	4
9	Nuisance: Construction Noise and Vibration	All Phases - Increases during: - Vehicle movements - Excavation - Earthworks	Landowners, wildlife	3	5	15	5

Impact Ref. No.	Potential Impact	Construction Phase	Sensitive Receptor	Importance Score	Probability Score	Priority Rating	Objective Ref.
10	Nuisance: Traffic Movements	All Phases - Material deliveries, waste collection - Staff transport - Workforce transport	Local businesses, residents , amenity users & the public	5	4	20	7
11	Nuisance: Mud on road	All Phases Material deliveries, waste collection	Local businesses, residents , amenity users & the public	4	4	16	7
12	Nuisance: Contractor parking	All Phases - Staff transport - Workforce transport	Local businesses, residents , amenity users & the public	3	5	15	7
13	Waste: General waste, Cleared material and debris, Removal of excess material off site	All Phases	Disposal site receptors – at construction compound	2	5	10	11
14	Visual impact: Temporary impact of construction works	All Phases	Loss of visual amenity, company reputation	3	4	12	5
15	Visual Impact: Change in character and quality of landscape	All Phases	Local businesses, residents & amenity users	2	5	10	5

Impact Ref. No.	Potential Impact	Construction Phase	Sensitive Receptor	Importance Score	Probability Score	Priority Rating	Objective Ref.
16	Resource Use: Aggregates	All Phases	Use of natural resources	2	5	10	9
17	Resource Use: Water	All Phases	Water sources away from site	1	5	5	9
17	Resource Use: Energy	All Phases • Operation of plant and equipment • Operation of offices • Provision of welfare	Use of non-renewable natural resources	1	5	5	9

Appendix D

Environmental Management Plan

TABLE 2 ENVIRONMENTAL MANAGEMENT PLAN

Objective		Target		Impact Ref. No.	Actions	Responsibility	Timescale
1	To prevent pollution of watercourses	1(a)	No significant deterioration in water quality during construction	1,2	Incorporate Natural England & Environment Agency recommendations into the Method Statements for works	Site Manager	As required
					Prepare and implement Method Statements for the construction of the works	Site Manager	Before groundwork commences & as work proceeds
					Maintain regular inspection of work sites to ensure control measures are implemented and remain effective	General / Section Foreman	Continuous
		1(b)	No enforcement action by statutory agencies during construction works	1,2	Establish requirements for any further statutory agency consents during project	Site Manager	Before groundwork commences
					Ensure requirements of any consents/conditions are maintained throughout relevant works	Site Manager / General Foreman	Continuous
		1(c)	No water pollution incidents during construction works	1,2	Develop and implement adequate Pollution Incident Response Plans throughout the works	Site Manager	Continuous
					Develop and maintain consultation with the statutory agencies over construction methods for sensitive phases of the project	Site Manager	Continuous
					Arrange specialist incident response cover via emergency contractor to be used in case of major spillage.	Site Manager	Before groundwork commences

Objective		Target		Impact Ref. No.	Actions	Responsibility	Timescale
1		1(d)	No corrective actions each audit relating to the implementation of Pollution Incident Response Plans	1,2	Inspect pollution incident response equipment regularly	Site Manager / General Foreman	Continuous
					Ensure regular tool box talks are given on pollution incident response equipment use	General Foreman	Continuous
2	To reduce or eliminate the release of airborne pollutants	2(a)	No dust pollution incidents during construction (<i>a dust pollution incident shall be defined as warranted complaint arising as a result of construction activities</i>)	3,4	Ensure relevant method statements include dust mitigation measures.	Site Manager	Before groundwork commences
					Arrange road sweeper to be used as necessary to control mud/dust on public access roads used by site traffic	Site Manager	Continuous
					Maintain visual inspection over works for dust emissions and implement control measures as required	General Foreman	Continuous
		2(b)	All vehicles and plant to be well maintained	3,4	Maintain plant maintenance schedule for all plant and equipment directly operated by Knights Brown.	General Foreman	Continuous
					Complete inspection checks on all plant and equipment directly operated by Knights Brown.	General / Section Foreman	Continuous
					Ensure sub-contractors can produce maintenance schedule and checks if required	Site Manager	Pre-let meeting
					Remove poor or faulty plant and equipment from site	General Foreman	As required
		2(c)	No complaints related to exhaust emissions from site based plant or equipment	3,4	Maintain regular visual inspections of exhaust emissions from plant and equipment.	Site Manager /General Foreman	Weekly inspection

Objective		Target		Impact Ref. No.	Actions	Responsibility	Timescale
3	To minimise the impact on existing ecological features	3(a)	No unauthorised removal or damage to protected vegetation during construction works	5,6,7	Develop and maintain continued consultation with statutory bodies and Local Authority to ensure interested parties are kept informed of proposed working methods and control measures.	Site Manager	Continuous
		3(b)	No unauthorised injury, damage or destruction of protected wildlife or vegetation during construction works – no enforcement action under Wildlife and Countryside Act or Habitats Regulations	5,6,7	Method statement for the protection of protected vegetation during excavation / removal of material	Site Manager	As required
					Prepare and implement a response plan to address potential discovery of protected fauna during works	Site Manager	As required
					Ensure works boundaries are clearly defined and maintained at all times	Site Manager / General Foreman	Continuous
					Ensure strict compliance to Method Statements when working adjacent to ecological features	Site Manager / General Foreman	Weekly inspections
					Develop and deliver tool box talk to section engineers and foremen outlining what to do in case of ecological discovery	Site Manager	Prior to commencing works
		3(c)	No unauthorised temporary land take outside of works boundary	5,6,7	Ensure works boundaries are clearly defined	Site Manager / General Foreman	Continuous
					Maintain regular inspections for works areas	Site Manager / General Foreman	Weekly inspections

Objective		Target		Impact Ref. No.	Actions	Responsibility	Timescale
4	To minimise impact on archaeological features	4(a)	No damage to unrecorded archaeological finds which may be discovered during works	8	Obtain archaeological specialist to maintain watching brief over ground works if unrecorded archaeology uncovered	Site Manager / General foreman / Field Archaeologist	Continuous
					Accurately record any features of archaeological interest	Field Archaeologist	As required
5	To minimise disturbance to client, local businesses, residents, amenity users and wildlife	5(a)	Zero prosecutions or enforcement actions related to noise disturbance	9	Prepare a Noise Management plan as part of the Pollution Prevention Plan outlining proposed control measures	Site Manager	Before work commences
		5(b)	Respond to any noise complaints within 48hrs of receipt	9	Ensure complaints and consultation log is maintained	Site Manager	Continuous
6	To minimise impact of works related traffic upon client, local businesses, residents, amenity users No complaints relating to mud on adjacent roads	6(a)	No complaints relating to works traffic using incorrect routes to site	10	Develop traffic management plan, include site access routes	Site Manager	Before work commences
					Ensure site access routes are communicated to all sub-contractors and suppliers, include site access points	Site Manager	Pre-let meeting / Enquiry information
		6(b)	No complaints relating to traffic speeds on adjacent roads	10	Obtain approval for traffic controls in sensitive locations with relevant local authority and police	Site Manager	As required
					Review traffic control measures monthly and respond to complaints	Site Manager	Continuous
		6(c)	No complaints relating to mud on adjacent roads	11	Site to be civilized with clean stone using capping/sub-base materials to all building & hardstanding areas	Site Manager	Continuous
					Wheel wash facility to be utilized at designated exit point as necessary		

Objective		Target		Impact Ref. No.	Actions	Responsibility	Timescale
6	To minimise impact of works related traffic upon client, local businesses, residents, amenity users No complaints relating to mud on adjacent roads	6(c)	No complaints relating to mud on adjacent roads	11	Call-off order for road sweeper visits to be set up prior to site commencement	Site Manager	Continuous
		6(d)	No complaints relating to contractor parking on adjacent roads	12	External hardstanding areas of the site to be designated for contractor parking		
7	To minimise the impact of waste disposal	7(a)	Promote the re-use and recycling of materials	13	Develop and implement Waste Management Plan	Site Manager	Before work commences
		7(b)	No prosecutions by statutory bodies related to waste disposal		Ensure correct 'duty of care' documentation is collected from waste contractors and tips		As required
8	To minimise the visual impact of construction works	8(a)	Complete the works as per the programme	14	All phases of project, including material delivery and storage are planned	Site Manager	Continuous
		8(b)	No complaints relating to construction works		Ensure works completed as per Method Statements.		
					Ensure compound/materials storage is tidy		
9	To minimise the consumption of aggregates, water and energy	9(a)	Minimise the use of primary aggregates where possible	15	Investigate availability and design suitability of secondary aggregates	Site Manager / Buyer	Continuous
		9(b)	Minimise the consumption of water through the project	16	Install check meters on water supply and record weekly readings to monitor usage	Site Manager	Continuous
					Install waterless urinals and percussion taps in site welfare		
		9(c)	Minimise the consumption of energy through the project	17	Install check meters on water supply and record weekly readings to monitor usage		
					Install PIR lighting, heating thermostats and timers in site welfare		

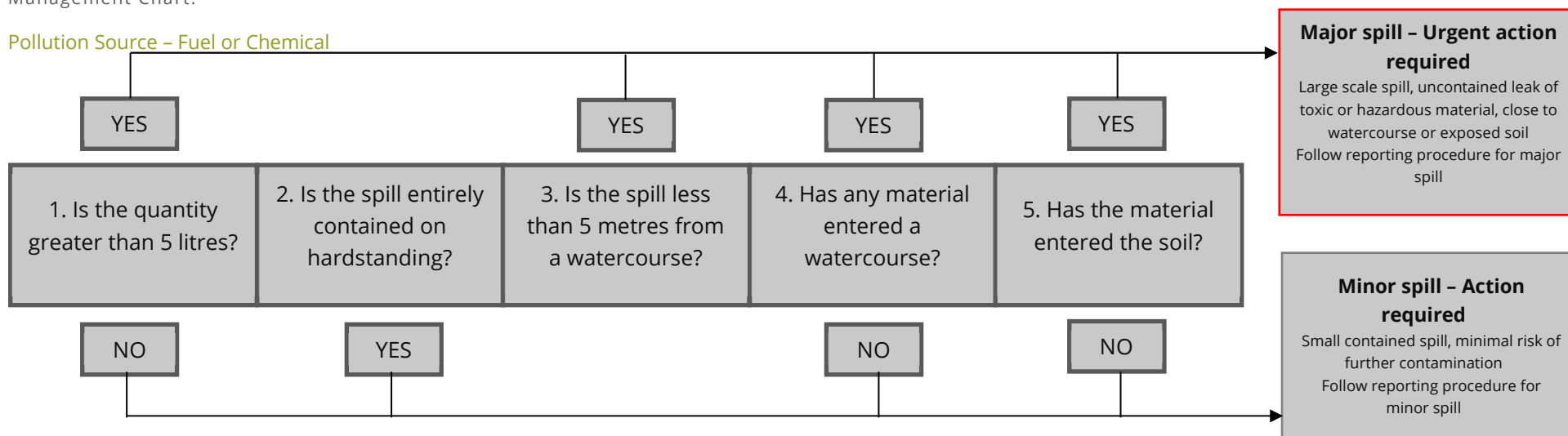
Appendix E

Standard and Site Pollution Incident Response Plan

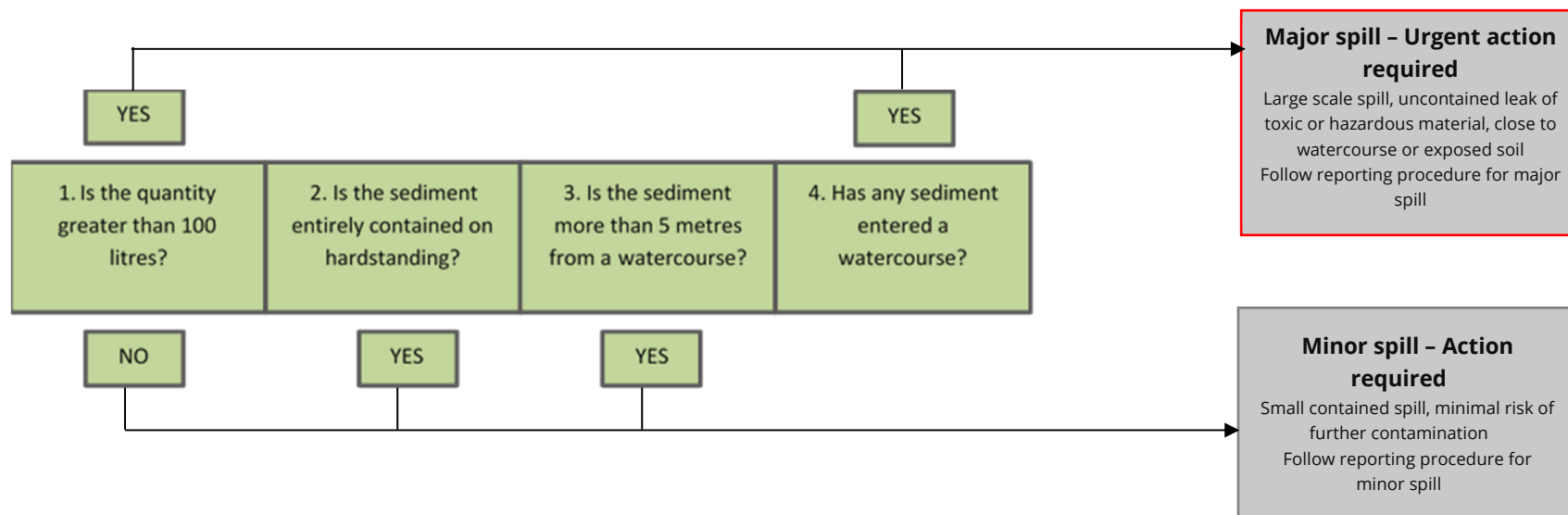
Pollution Incident Assessment

If you observe polluting materials being spilled or leaking, follow the decision tree below to determine the correct course of action on the Pollution Incident Management Chart.

Pollution Source – Fuel or Chemical

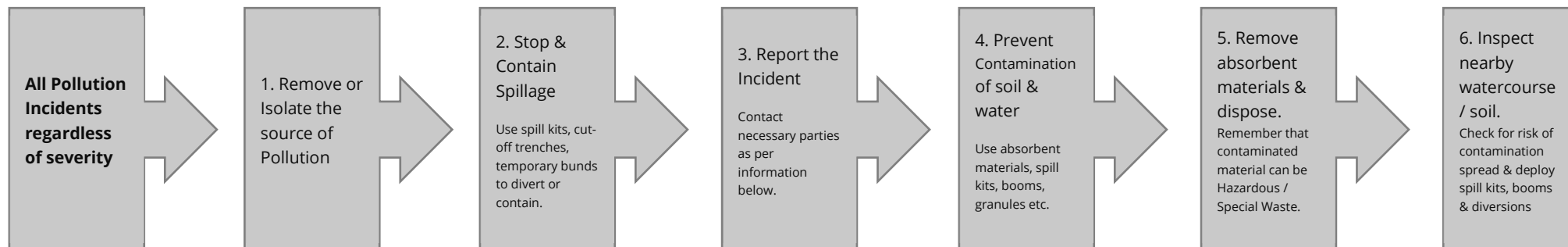


Pollution Source – Sedimented water or concrete

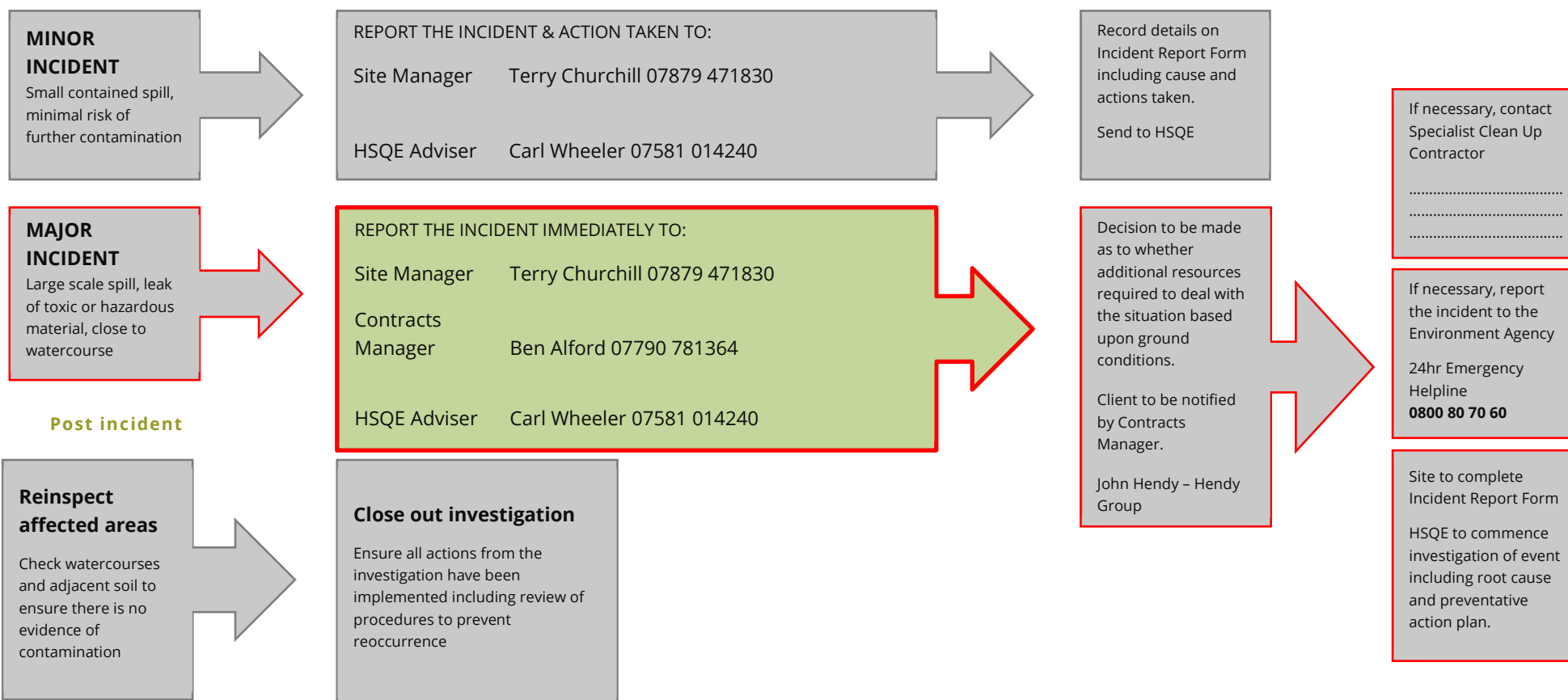


Pollution Incident Management

Action to take in the event of a pollution incident



Reporting of an incident – in accordance with the site emergency plan



Environmental Emergency Plan

Person responsible for taking charge at the scene:	
1.	In case of spillage of Oils and Chemicals, report immediately to your Manager/Supervisor, who should report the incident to: Knights Brown Health and Safety Advisors Olav Lawrence 07733 367862 Claire Bithrey 07827 278877 Carl Wheeler 07581 014240 Mark Lilly 07773 099286
	Try to Identify the Source of Pollution and Stop the Flow Immediately; Switch off any source of Ignition
3.	Avoid the spill Spreading: • Check the site drainage – Where will the Spillage go? • Stop the flow if possible; • Dam the flow with earth / sand / polythene; • Divert from Drains / Watercourses where possible.
4.	Get a Spill Kit: • Use absorbent materials if appropriate; • Place a Boom across watercourse as a precaution.
5.	Use sand or absorbent pads to mop the spillage up. • Do not Wash Spillage into the Drainage system – it only makes things worse; • Never use Detergents.
6.	If the spill has already entered the Drains, block off the entrance to the drains to prevent any more from entering
7.	Any Contaminated material (Special Waste) must be disposed of appropriately, including materials used for mopping up.

Controlling a Spillage – What You Should Do

WHAT TO CONTROL

If you spill or discover any of the following materials spilt, then they must be controlled immediately.

- Diesel or fuel oil
 - Hydraulic oil
 - Shutter oil
 - Chemicals
 - Curing agents
 - Cleaning agents
- Any other chemical materials.

ASSESS IT

Has anyone been injured?
Is spillage safe to approach?
Have you got the correct PPE?
Where is the spillage coming from?



Always Remember - Safety First



CONTAIN IT

Stop spillage at source, if possible.

- Stop spillage entering drains or open water - use absorbent materials to protect drainage.
- Use absorbent material to contain spillage - put absorbent material down at edges of spill first

REPORT IT

All spills or leaks must be reported to site management.

Things to report:

- Source and reason of spillage
- The material involved
- Any escape to drains or into open water
- Action taken so far

CLEAN IT UP

- **Do not** wash spillage down drains!
- **Do not** put oil-contaminated waste into general waste skips!

If it is not clear to you where oily waste should be put – ask!!

Appendix F

Mitigation of Environmental Intervention

Protecting the Environment – Water Courses, Landscape, Plants and Wildlife

1. Which construction activities are involved?

All construction modifies the Environment, but especially:

- Removing topsoil
- Clearing new road / track line
- Diverting water
- Carrying out any action that cause siltation into watercourse, or modify natural flow
- Carrying out any actions away from the site area demarcation
- Cutting trees
- Any potential polluting situations – refuelling, maintenance, leaving lubes/fuels/oils or other construction materials on site, exposed or unattended.

**2. What is Important?**

- The landscape and groundcover vegetation
- Burns, streams, and periodic watercourses
- Trees – significant vegetation features
- Fixed wildlife features such as burrows, setts, hole in the ground of any reasonable size, nests, drays, eggs and chicks – on the ground, in trees or in bushes
- Mammals – Protected species such as Otters, Badgers, Red Squirrels, Bats
- Snakes
- Amphibious creatures – such as frogs, toads, newts
- Fish
- Birds
- Other wildlife evidence – dead animal remains, bats in enclosed spaces
- Livestock

3. Before works starts on site (e.g. starting a new culvert, new track or other site clearance)

- Relevant permissions to be in place – EA permits, MMO Licences, planning permissions
- Refer to pre-construction ecological survey and ensure any requirements or controls are observed

4. During work on site

- Prevent materials from entering or disturbing the flow of water especially sediment, dust, spoil from road, fuels and oils or other construction materials.
- Make adequate use of alternative drainage, sedimats, drip trays, plant nappies, Teram filters and silt bags etc.
- Ensure spill kits are suitably placed and well stocked.
- Ensure any spills are reported as per the Site Emergency Plan and in accordance with the Pollution Incident Assessment and Management Plan.
- On discovery of trapped / static animals, snakes, amphibian, fish, bird, nest with or without eggs / chicks, livestock, significant burrow or standing tree stop work if to continue would cause disturbance to the fauna or flora.
- Report findings to on site supervisor and await decision as to how to proceed
- Where possible encourage mobile animals to move off site of their own accord
- Do not attempt to move or disturb snakes – adder bites can be fatal, although some GP practices / hospitals hold antivenom
- Ensure that any open excavations have ramped access to allow animals to escape should they enter / fall in
- Be aware of stored materials that have stood for some time – animals may have set up home within
- Observe exclusion zones set up to prevent disturbance of protected species / trees
- Familiarise yourself with potential invasive plant species that may be present on site and the action to take upon discovery.

**5. Completion of site**

- Ensure all materials and waste are removed
- Finishing works to include reinstatement, landscaping and repair as appropriate

IF YOU ARE UNCERTAIN OF THE SIGNIFICANCE OF ANY INCIDENT / DISCOVERY INFORM Carl Wheeler (HSQE ADVISER) ON 07581 014240 IMMEDIATELY TO PREVENT UNNECESSARY DELAYS TO CONSTRUCTION.