

Local Authority Requirements

Who, Why, When, & How

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Borough Council of
King's Lynn &
West Norfolk



Who is responsible for what?

- LA, Agent, Developer, Contractor, Consultant
- Where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner
- Competent person. 'Appropriately competent in the tasks they are doing for each stage.'



Who – Local authority

- Who is responsible for what?
- Local Authority Planning – planning control
- Local Authority Env Health or Contaminated Land Officer – environmental consultee
- Local Authority EH or CLO – Part 2A



Why?

- A safe place to live or work
- National Planning Policy framework
- Land Contamination Risk Management
- Other Technical Guidance
- What the contaminated land officer looks for
- Discharge conditions
- Release funds – sell houses



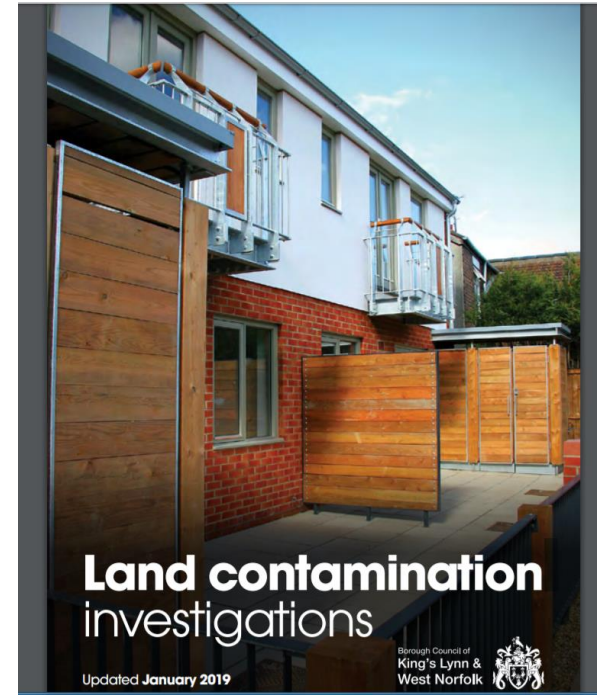
Why - NPPF

- Prevent unacceptable risk from, or adverse affects of unacceptable levels of soil pollution
- Ensure that a site is suitable for proposed use taking account of ground conditions and any risks from contamination
- As a minimum, land shouldn't be contaminated land under Part 2A of Environmental Protection Act 1990
- Adequate site investigation information, prepared by a competent person, to inform these assessments.



Why - NPPF

- Where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the **developer and/or landowner**



Why - LCRM October 2020

- The Environment Agency expects you to follow this guidance to manage the risks from land contamination.
- Local authorities may also provide additional guidance.

Guidance

Land contamination risk management (LCRM)

How to assess and manage the risks from land contamination.

From: [Environment Agency](#)

Published 8 October 2020

Last updated 19 April 2021 — [See all updates](#)

LCRM: Relevant to all

Relevant to all managing land contamination.

- landowners, financiers
- regulators
- developers
- planners
- consultants & remediation contractors
- **We expect that the person responsible for applying LCRM is appropriately competent in the tasks they are doing for each stage.**

- poll



Chartered Institute of
Environmental Health



CIWEM



The institution of
environmental sciences



The
Geological
Society



IEMA

Transforming the world
to sustainability



ROYAL SOCIETY
OF CHEMISTRY

SoBRA

The Society of Brownfield Risk Assessment



Borough Council of
King's Lynn &
West Norfolk



SPECIALIST IN LAND CONDITION



LCRM: Competent Person

NPPF definition. Appropriate knowledge, skills, experience and qualifications of particular area including:

- professional qualifications
- a proven track record of dealing with land contamination

NQMS Voluntary national quality mark scheme

- Admin by CL:AIRE
- Suitably Qualified and experienced Person (SQP).
- Environment Agency and SoBRA support its use.
- Can provide increased confidence and ensure that reports are of suitable quality.



LCRM: 4 Guides, 3 Stages

- Explains why we ask for things the way we do
- LCRM is made up of 4 guides:
- Before you start,
- Stage 1 Risk assessment,
- Stage 2 Options appraisal,
- Stage 3 Remediation and verification.

When - LCRM: Stage 2

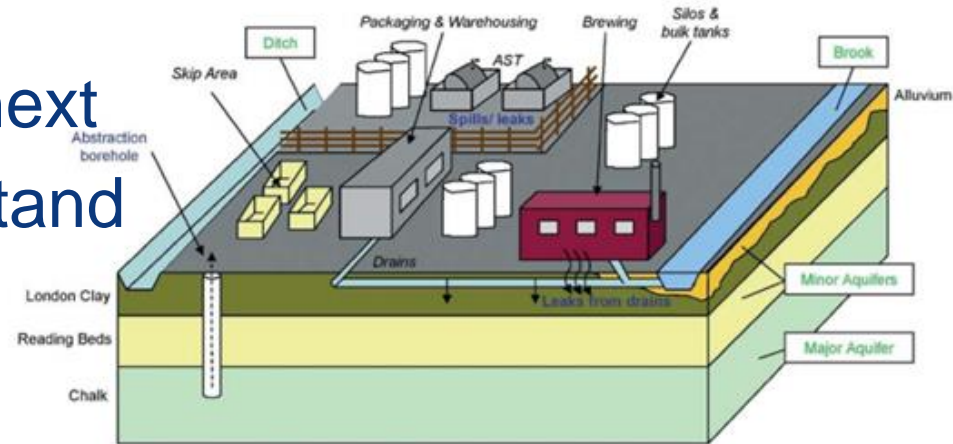
- Assumes each stage is complete before you continue. Risk assessment, CSM, what is the problem
- Stage 2: Options Appraisal
 - Identify and shortlist feasible remediation options
 - Alongside design and development control process
 - BUT there may be different funding, contractor priorities & supply chain timelines



Conceptual site model is key

- Iterative process
- Each stage informs the next
- CSM tells us you understand the site
- Tells you what needs to be done

Figure 1.2 Example initial conceptual site model



CSM is key

- Remove source
- Break pathway
- Don't put the receptor there?

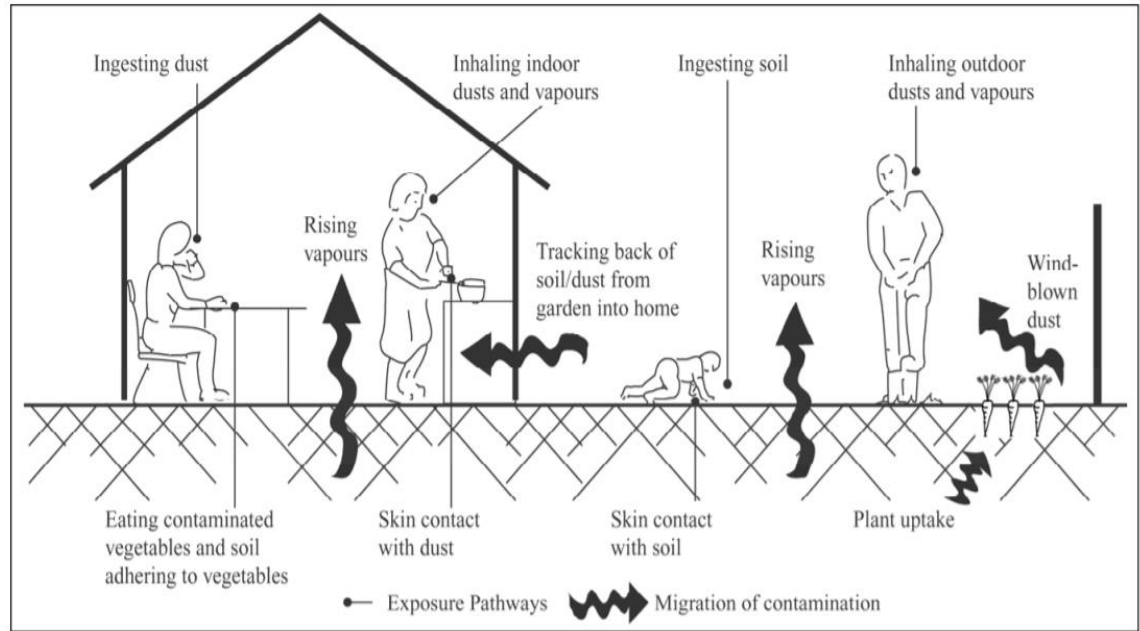


Figure 2.1: Illustration of the potential exposure pathways in the CLEA model

When - LCRM: Stage 2

- Risk assessment and conceptual site model must be complete & approved
- Options Appraisal considers
 - Effectiveness, practicability – size, layout, topography
 - Timescales – approvals, permits, other work
 - Health & Safety – workers, materials, amenity
 - Cost & Sustainability

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LCRM: Sustainable Remediation

Potential to cause environmental, economic and social impacts. Address this by showing:

- the benefit of doing remediation is greater than its impact
- balanced decision making process to select the optimum remediation solution
- remediation manages the unacceptable risks in a safe & timely manner. Maximise the overall environmental, social and economic benefits across whole supply chain.



Why sustainable?

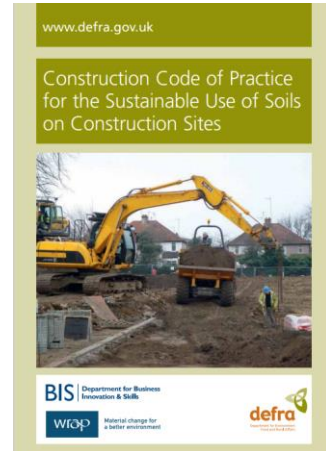
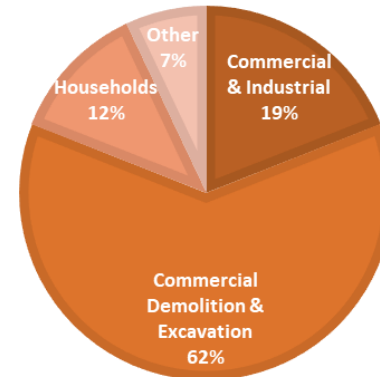
- COP 26, Env Act 2021, OEP
- Protect, restore and promote sustainable use of terrestrial ecosystems, halt and reverse land degradation and halt biodiversity loss
- CIRIA RP1124 Sustainable management of surplus soils and aggregates - Toolkit



SUSTAINABLE DEVELOPMENT GOALS
17 GOALS TO TRANSFORM OUR WORLD



UK STATISTICS ON WASTE
DEFRA, 2018



Why sustainable?

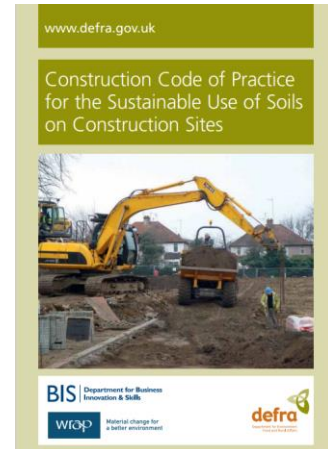
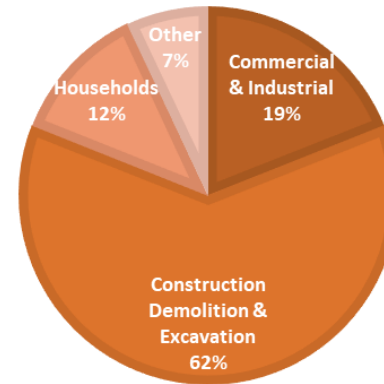
- Largest waste material categories generated in the UK in 2018 were
 - ‘Mineral Wastes’ (80.4 million tonnes)
 - ‘Soils’ (58.5 million tonnes)
- Together, these make up almost two thirds (63%) of total UK waste



SUSTAINABLE DEVELOPMENT GOALS
17 GOALS TO TRANSFORM OUR WORLD



UK STATISTICS ON WASTE
DEFRA, 2018



When - LCRM: Stage 3

- Stage 3: Remediation and verification
 - Details, design, verification plan, monitoring and maintenance requirements, regulatory controls
 - Remediate
 - Produce a verification report
 - Do long term monitoring and maintenance, if required.



LCRM: Stage 3

- **What is in a remediation strategy.**
 - Remediation plan, Remediation method statement
 - Develop a remediation strategy based on options
 - Single remediation strategy that deals with whole site
 - Clear set of remediation activities and how you will implement and verify them. How you will meet and carry out the remediation objectives
 - Checklist in LCRM



LCRM: Verification

- When remediation is complete, you will need to produce a verification report.
- Demonstrates that the risk has been reduced and that the remediation objectives and criteria have been met. Include lines of evidence approach as set out in your verification plan.
- The verification report will need to provide a complete record of all remediation activities and evidence that it has been successful.



HOW - NCLOG 2023

Cover Systems & their verification

- NCLOG National Contaminated Land Officers Group
- DRAFT, for release Autumn
- Single point of reference for Local Authority CLOs
- May also be used developers and consultants
- Help ensure where cover systems are part of a remediation strategy, that the design and verification fits with LCRM.



HOW - NCLOG - Other key guidance

- BRE 465 Cover Systems for Land Regeneration
- CIRIA Special Publication 124: Barriers, Liners and Cover Systems for Containment and Control of Land Contamination
- CIRIA Special Publications 106: Remedial Treatment for Contaminated Land Volume VI: Containment and hydraulic measures
- YALPAG Verification Requirements for Cover Systems



NCLOG - remediation strategy

- Include cover system in options appraisal
- If a cover system is the most feasible remediation option (single, multiple, or combined approach) will form part of remediation strategy
- Simple cover system
- Engineered cover system

NCLOG - when to use a cover system

- When it's
 - Practical: site characteristics, timescales
 - Effective: will reduce risk to acceptable level
 - Sustainable: environmental, economic and social impacts
- Simple cover system – when exposure needs to be reduced
- Engineered cover system – permanent removal of exposure pathway



CSM is key

- Remove source
- Simple or engineered
- Reduce exposure
- Break pathway

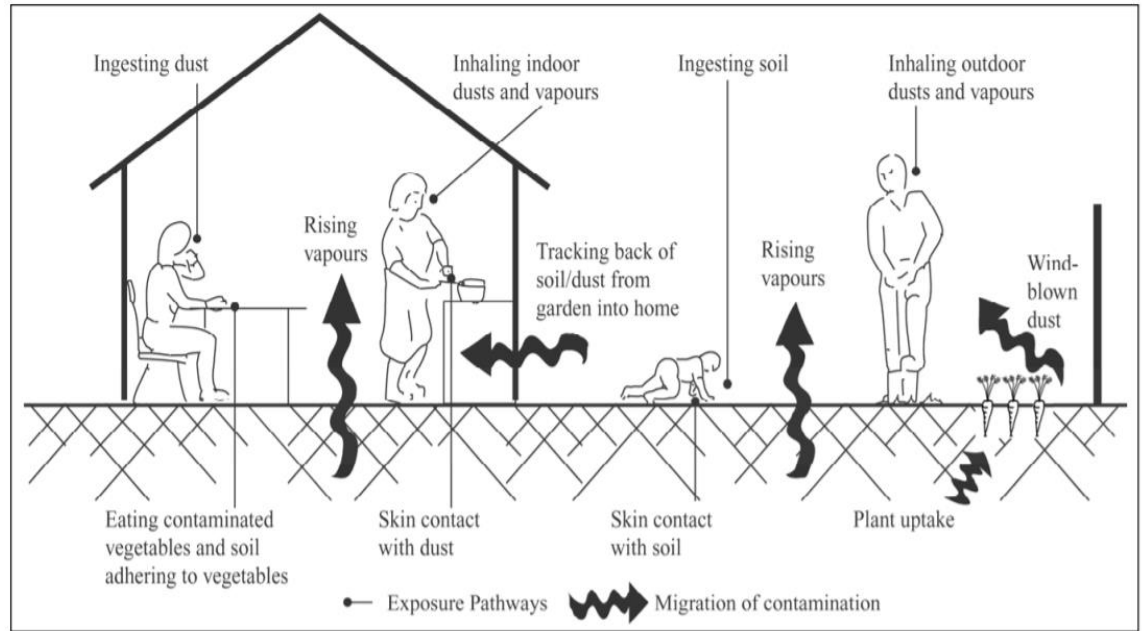
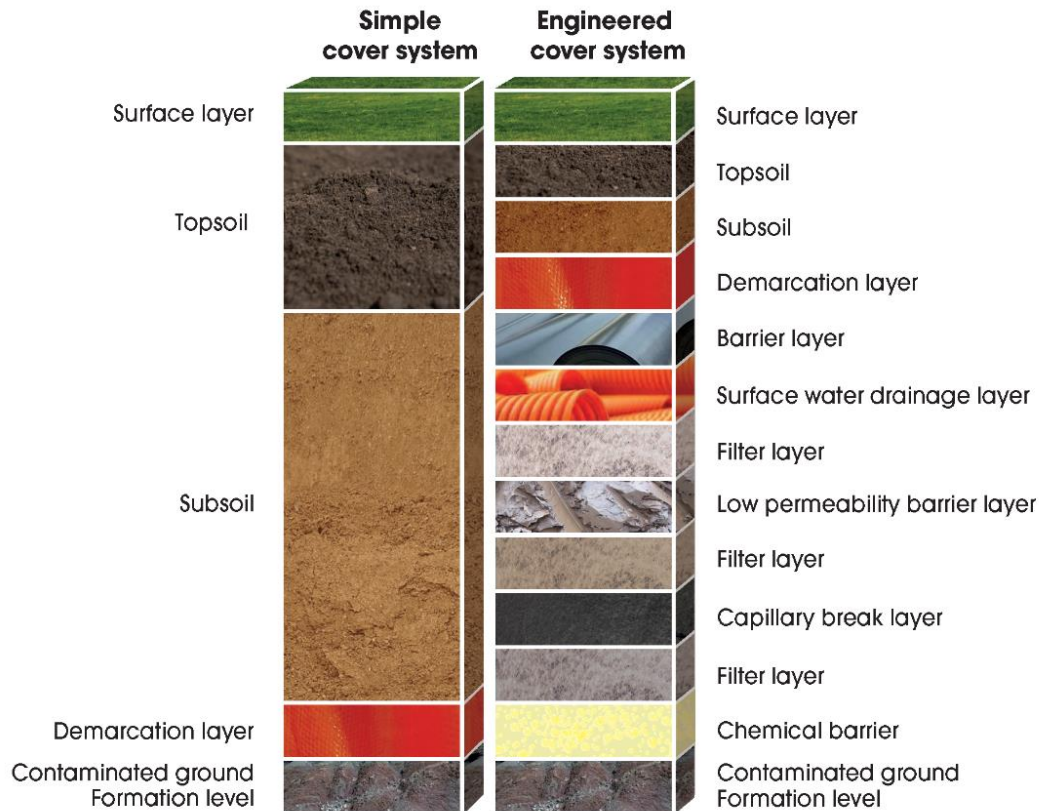


Figure 2.1: Illustration of the potential exposure pathways in the CLEA model

NCLOG – cover systems

DRAFT



Relative positioning of the possible cover system components. In practice, only selected layers would be incorporated in any particular cover system

NCLOG – design

DRAFT

- Changes in levels
 - Reduced, increased, planning
- Slope & terraces
 - Stability, erosion, drainage
- Boundaries & intersections
 - Roads, pavements
 - Barriers, tapering



NCLOG – design

DRAFT

- Services & utilities, corridors, maintenance
- Combustible material, mining, cables
- Sustainability, climate change, durability
- Groundwater & flooding, re-mobilise, drainage
- Long-term management, in validation report
- Trees, new and existing, engineering, SuDS



NCLOG – cover systems depth

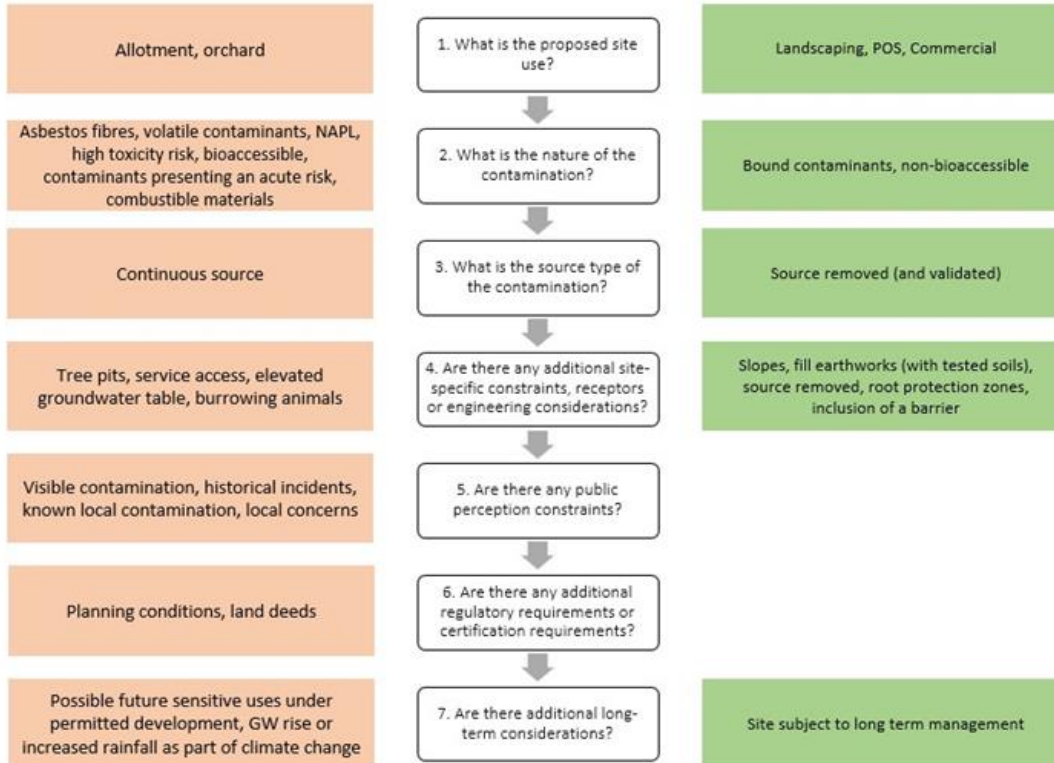
- Contentious issue
- No official guidance on appropriate depths for different uses
- Considers available guidance on cover depth
- Factors that regulators may consider in cover system depth and engineering design.



NCLOG – cover systems depth DRAFT

Increased cover layer thickness or additional engineering considerations may be required

Decreased cover layer thickness may be appropriate, with sufficient justification and agreement with the relevant regulator



Depth decision tool. Based on the answers to the questions in the central column, increased thickness (to the left) or decreased thickness (to the right) of cover system may be appropriate. Intended as a starting point to consider site-specific issues, so does not recommend specific thicknesses for different scenarios.



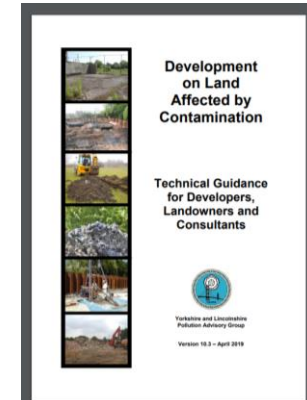
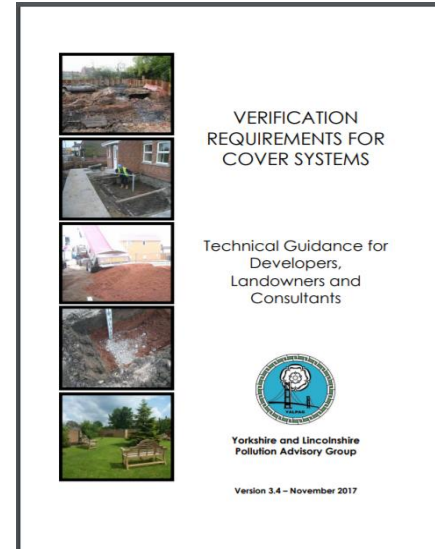
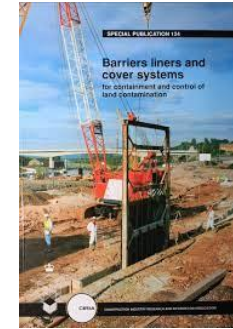
Verification

- When remediation is complete, you will need to produce a verification report.
- Demonstrates that the risk has been reduced and that the remediation objectives and criteria have been met. Include lines of evidence approach as set out in your verification plan.
- The verification report will need to provide a complete record of all remediation activities and evidence that it has been successful. Maintenance, long term.



Local Authority Guidance

- Standards and guidance
- Promotes consistency
- Norfolk uses work carried out with YALPAG



What we need to see – capping/cover

- www.west-norfolk.gov.uk/planning-on-contaminated-land
- Guidance to improve the quality of reports submitted to Local Authorities and give contractors & consultants reference to obtain approval from their client.
- Does not cover the geotechnical suitability of soils or material or chemical suitability that does not affect human health e.g. sulphates
- Materials brought onto a development site for gardens or soft landscaping are suitable for use and do not present harm to people, the environment and/or property.

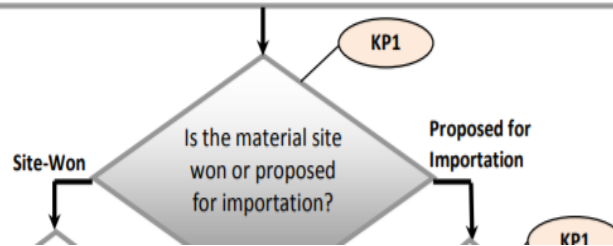


Cover system breaks the pathway

- Design based on CSM

Overview Flowchart

Agree 'Remediation Strategy' with regulator. Decision on the required depth of cover and any need for:
(i) Physical no-dig layer (ii) Capillary break layer (iii) Demarcation Layer



What we need to see

Phase 3 Watch points:

- Obtain and keep details of the removal and correct disposal of contaminated material from the site.
- Obtain details of the imported soils. Ensure that test records from the supplier apply to the soil physically intended for importation.
- Imported soil should be sampled once it has been laid on the site to support the analysis provided by the supplier.



Phase 4 - Verification and Validation

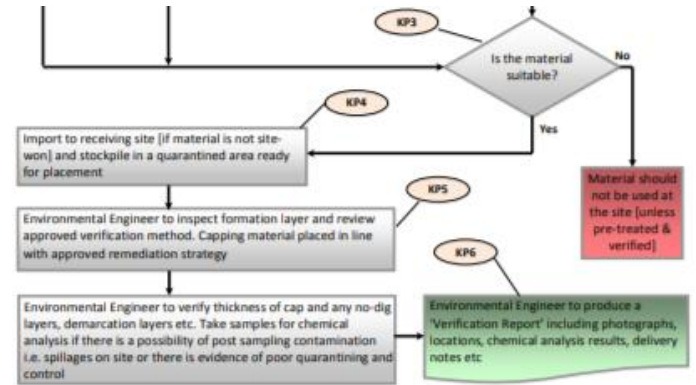
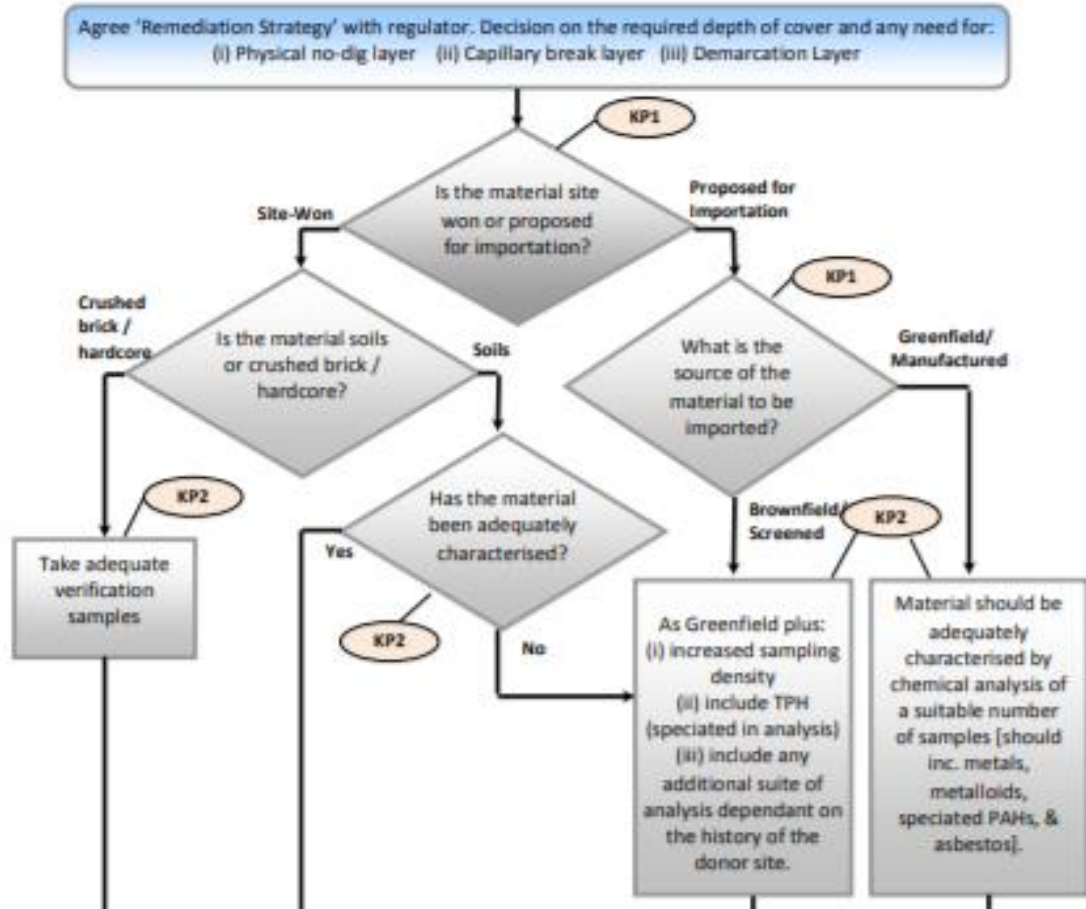
A verification or validation report is required when the remediation is complete to prove it is effective. Its content will have been agreed in advance as part of the RMS (above).

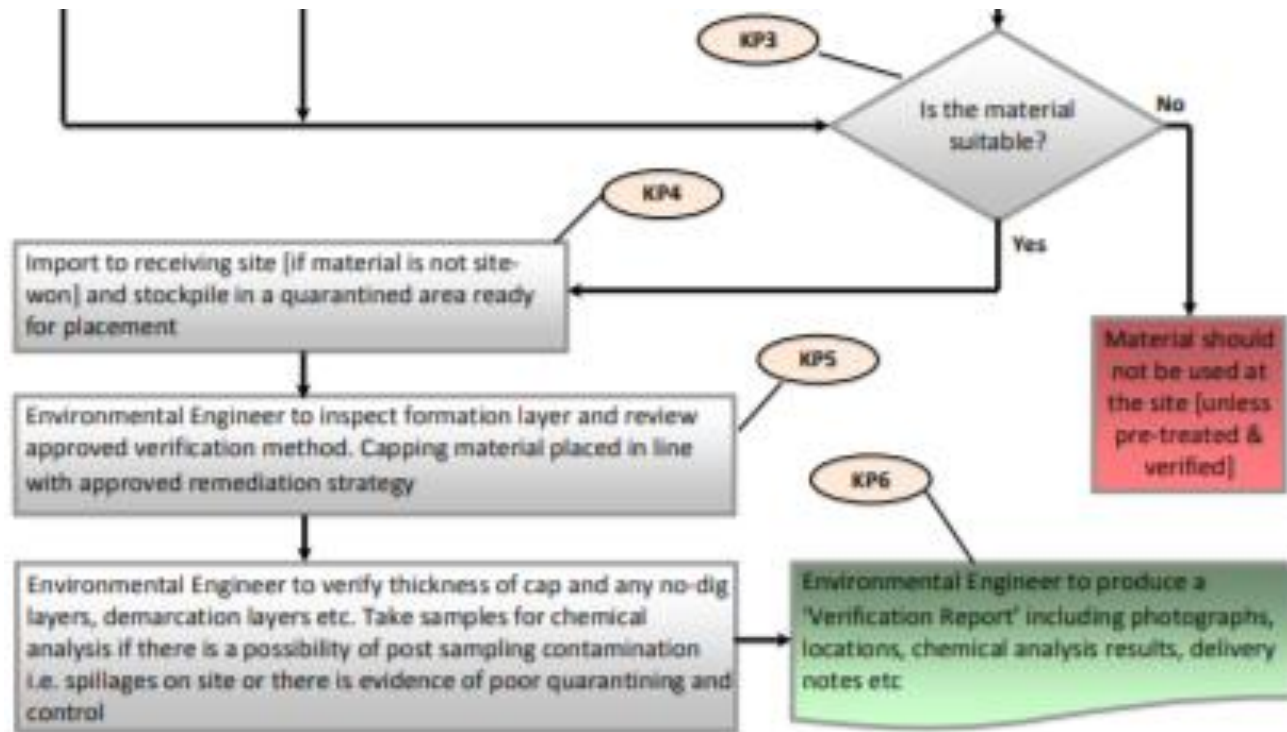
Your verification/validation report should include:

- Evidence that all of the agreed remediation actions are complete and details of who carried out the work;
- Details of any changes made to the RMS and why they were required;
- Verification data including in situ testing and laboratory test results with appropriate interpretation and analysis of the results;
- Plans, as built drawings and photographs demonstrating the work carried out;
- Key items of correspondence, meeting or site visit notes. Waste transfer notes and certificates for topsoil;
- Details of any ongoing verification or long term management;
- Confirmation that remediation objectives have been met and the site's status at completion of the work.

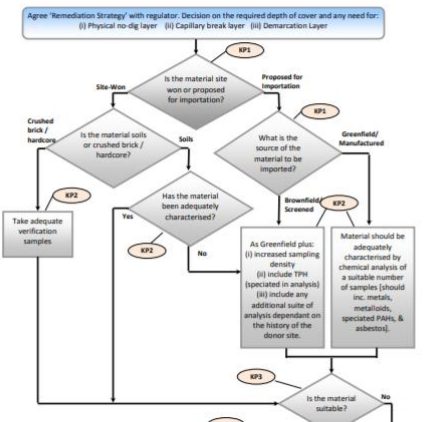


Overview Flowchart





Overview Flowchart



What we need to see

Appendix 1a – Sampling & Testing Matrix

| Type | Number of Samples | Testing Schedule | Assessment Criteria |
|--------------------------------|--|--|---|
| Virgin Quarried Material | 1 or 2 depending on the type of stone utilised, to confirm the inert nature of the material. | Standard metals/metalloids (should include as a minimum As, Cd, Cr, CrVI, Cu, Hg, Ni, Pb, Se, Zn) | This needs to be agreed with the Local Authority. The Assessment criteria needs to be UK based, e.g. LQM S4UL's, Defra C4SL's or other similarly derived GAC's. |
| Crushed Hardcore, Stone, Brick | Minimum 1 per 1000m ³ | Standard metals/metalloids (As above) PAH (16 USEPA speciation) Asbestos | |
| Greenfield/ Manufactured Soils | Minimum 3 or 1 per 250m ³ (whichever is greater) | Standard metals/metalloids (As above) PAH (16 USEPA speciation) Asbestos | |
| Brownfield/ Screened Soils | Minimum 6 or 1 per 100m ³ (whichever is greater) | Standard metals/ metalloids (As above) PAH (16 USEPA speciation) TPH (CWG banded) Asbestos Any additional analysis dependant on the history of the donor site. | |

Appendix 1b – Questions to Ask Your Soil Supplier Relating to Soil Quality

- What is the source of the material (refer to KP1)?
- Will all of the material be coming from the same source?
- Are you satisfied that the material is a suitable growing medium for the proposed end use?
- Has the supplier used an appropriate sampling protocol to ensure a representative sample is analysed? What volume of soil is represented by the analysis and does it comply with Appendix 1a?
- Does the testing include analysis of contaminants identified in Appendix 1a?
- Does the laboratory conducting the analysis have UKAS and MCERTS accreditation for the tests they are carrying out?
- Can I have a copy of the whole analysts report and does it include an interpretive section?
- Will the provided certificate be dated within the last 2 months?

Verification Requirements for Cover Systems

YALPAG Technical Guidance for Developers, Landowners and Consultants

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What the planning authority looks for

- Any conditions are necessary, reasonable and enforceable
- Adequate information to discharge conditions
- LPA will have regard to technical advice from the contaminated land officer
- Have the requirements of the conditions been met? Public Record



What the contaminated land officer looks for – Key elements

- Check against LCRM
- Stage 1 Desk study, screening assessment, preliminary risk assessment
Detailed site investigation and risk assessment;
- Stage 2 options appraisal
- **Stage 3 Remediation, post remediation verification testing and report.**
- You must be a competent person to produce remediation and verification reports.



What the contaminated land officer looks for – Key elements

- Background information - site details, preliminary risk assessment, responsibilities, (owner, contractors, developers), regulatory requirements
- general description of remediation strategy, include CSM, remediation objectives
- the sequence of activities
- a clear description of how the remediation was verified
- volumes and characteristics of material treated, disposed & of any imported material
- details of sustainable remediation
- waste transfer and consignment notes, DoW CoP
- monitoring or maintenance required, restrictions on land use, maintenance, constraints
- photos, plans, maps and diagrams, relevant correspondence
- test results – in situ, on-site and laboratory test results for all materials including imported materials



What we need to see

Appendix 2 – Checklist for Verification Reports

Example only. Not to be considered as typical minimum requirements. Additional information should be included for non cover systems aspects of the remediation i.e. gas protection measures etc.

| Site Details | |
|---|--|
| Site Name / location | |
| Developer name | |
| Development use | |
| Plot No / description of landscaped area (inc plan of inspection areas) | |
| National Grid Reference | |
| Inspection visit date | |
| Supporting Evidence | |
| Description of remediation (as per agreed Remediation Method Statement including depths / thickness checks, topographical readings) | |
| Material tracking information (including way tickets etc) | |
| Name of groundwork's remediation contractor | |
| Name of supervising environmental consultant | |
| Site Specific chemical analysis results | |
| Verification Photographs (inc. remarks) | |
| Recommendations | |

| Recommendations | |
|--|--|
| Pass / fail | |
| If material fail, how will this be managed i.e. removed, treated | |
| Detail any further remedial works and / or inspection | |
| Signed off | |

Failure to provide any of the above information may prevent planning conditions from being discharged.



How?

Discharge of conditions

- Include a description of the final site condition at completion and the final extent of remediation,
- Implications of the final site condition on the future use of the site
- Not at unacceptable risk from, or adversely affected by, unacceptable levels of soil pollution
- Site is suitable for its permitted use



Case Study 1

- Why, where, how?
- Some unsuitable material
- Remediation
- Validation sampling
- Stockpiled soils



Case Study 1

- Why - Some contaminants over assessment criteria
- Where - Remedial strategy included minimum 600mm certified clean cover system in garden areas over made ground. Terram™ geotextile in garden and soft landscaping.
- How – ?? Stockpiled soils, tested post placement
- Sampling showed at least 520mm of topsoil. Up to 700mm. No evidence of Terram but thickness of cover material over minimum recommended thickness. Risks to human health considered to have been suitably managed in the garden areas.
- BUT – where was 'locally sourced topsoil from?



Case Study 1

- Soil import for cover layer
- Information on the source of topsoil – local source was from commercial development site
- Desk Study, sampling for commercial end use
- Samples from stockpiles
- Where was this used?
- What is in garden areas?
- Use competent person – one final verification report



Case Study 1

- Remediation Strategy should include Verification Plan
- Competent person for verification needs information on:
 - Material quality and depth
 - Compliance with design including imported material
 - Waste tickets
 - Geotextile membranes
 - On-site observations



Case study 2

From:

Sent: 13 September 2019 11:14

To: Search

Subject: [1/002:F] Kings Lynn

Importance: High

I am not sure if you can help me on this one. I am acting on the sale of the above property. The buyer's environmental search has revealed that there may have been contamination I believe it was the former Works. The buyer is saying that she will pull out unless we can provide her with evidence that there is no contamination. We have explained to the solicitors and estate agents that the planning permission would not have been granted if there were any issues but the buyer is not satisfied. Is there any written documentation with the planning documents which confirms that there are no contamination issues.

I would be most grateful to receive any help on this one.

Kind regards

Chartered Legal Executive



Case study 2



Case study 2



Soft Landscaping Area Adjacent to Road - In Front of Plots 15/16



Plot 16 Soft Landscaping Formation Pre Topsoil Placement



Case study 2

- Stockpile testing
- Post placement analysis

| MCEKTS Preparation | | | | | | | |
|---------------------------|--------|-----------------------|-----------------------|------------|-----|-----|----|
| SAL Reference | | 394134 001 | 394134 002 | 394134 003 | | | |
| Customer Sample Reference | | Topsoil 1 (stockpile) | Topsoil 2 (stockpile) | Topsoil 3 | | | |
| Date Sampled | | 07-MAY-2014 | 07-MAY-2014 | 07-MAY-20 | | | |
| Type | | Topsoil | Topsoil | Topsoil | | | |
| Determinand | Method | Test Sample | LOD | Units | | | |
| Moisture | T277 | AR | 0.1 | % | 7.9 | 8.9 | 22 |
| Moisture @ 105 C | T162 | AR | 0.1 | % | 8.5 | 9.9 | 23 |

| SAL Reference: 394134 Project Site: 18No. Plots, Kings Lynn Customer Reference: 30078 | | | | | | | |
|---|--------|-----------------------|-----------------------|------------|-----|-----|-----|
| Soil Analysed as Soil | | | | | | | |
| Geodyne Suite 1 | | | | | | | |
| SAL Reference | | 394134 001 | 394134 002 | 394134 003 | | | |
| Customer Sample Reference | | Topsoil 1 (stockpile) | Topsoil 2 (stockpile) | Topsoil 3 | | | |
| Date Sampled | | 07-MAY-2014 | 07-MAY-2014 | 07-MAY-20 | | | |
| Type | | Topsoil | Topsoil | Topsoil | | | |
| Determinand | Method | Test Sample | LOD | Units | | | |
| Arsenic | T6 | M40 | 2 | mg/kg | 8 | 9 | 9 |
| Cadmium | T6 | M40 | 1 | mg/kg | <1 | <1 | <1 |
| Chromium | T6 | M40 | 1 | mg/kg | 11 | 12 | 15 |
| Chromium VI | T6 | AR | 1 | mg/kg | <1 | <1 | <1 |
| Copper | T6 | M40 | 1 | mg/kg | 13 | 13 | 11 |
| Lead | T6 | M40 | 1 | mg/kg | 22 | 23 | 15 |
| Mercury | T6 | M40 | 1 | mg/kg | <1 | <1 | <1 |
| Nickel | T6 | M40 | 1 | mg/kg | 9 | 10 | 11 |
| pH | T7 | AR | | | 7.6 | 7.9 | 7.8 |
| Selenium | T6 | M40 | 3 | mg/kg | <3 | <3 | <3 |
| Total Organic Carbon | T21 | M40 | 0.1 | % | 0.8 | 1.0 | 2.2 |
| Zinc | T6 | M40 | 1 | mg/kg | 44 | 47 | 36 |

| SAL Reference: 394134 Project Site: 18No. Plots, Kings Lynn Customer Reference: 30078 | | | | | | | |
|---|--------|-----------------------|-----------------------|------------|----------|----------|----------|
| Soil Analysed as Soil | | | | | | | |
| BTX GRO MTBE | | | | | | | |
| SAL Reference | | 394134 001 | 394134 002 | 394134 003 | | | |
| Customer Sample Reference | | Topsoil 1 (stockpile) | Topsoil 2 (stockpile) | Topsoil | | | |
| Date Sampled | | 07-MAY-2014 | 07-MAY-2014 | 07-MAY-2 | | | |
| Type | | Topsoil | Topsoil | Topsoil | | | |
| Determinand | Method | Test Sample | LOD | Units | | | |
| Benzene | T209 | M105 | 10 | µg/kg | (12) <10 | (12) <10 | (13) <10 |
| Toluene | T209 | M105 | 10 | µg/kg | <10 | <10 | <10 |
| Ethylbenzene | T209 | M105 | 10 | µg/kg | <10 | <10 | <10 |
| m,p-Xylene | T209 | M105 | 10 | µg/kg | <10 | <10 | <10 |
| O-Xylene | T209 | M105 | 10 | µg/kg | <10 | <10 | <10 |
| Methyl tert-Butyl Ether | T209 | M105 | 10 | µg/kg | <10 | <10 | <10 |
| Gasoline Range Organics | T84 | M105 | 100 | µg/kg | <100 | <100 | <100 |

| Soil Analysed as Soil | | | | | | | |
|--------------------------------|--------|-----------------------|-----------------------|-------------|--------|--------|--------|
| Geodyne TPH (CWG) | | | | | | | |
| SAL Reference | | 394134 001 | 394134 002 | 394134 003 | | | |
| Customer Sample Reference | | Topsoil 1 (stockpile) | Topsoil 2 (stockpile) | Topsoil 3 | | | |
| Date Sampled | | 07-MAY-2014 | 07-MAY-2014 | 07-MAY-2014 | | | |
| Type | | Topsoil | Topsoil | Topsoil | | | |
| Determinand | Method | Test Sample | LOD | Units | | | |
| TPH (C6-C8 aliphatic) | T206 | M105 | 0.100 | mg/kg | <0.100 | <0.100 | <0.100 |
| TPH (C6-C8 aromatic) | T209 | M105 | 0.10 | mg/kg | <0.10 | <0.10 | <0.10 |
| TPH (C8-C10 aliphatic) | T206 | M105 | 0.10 | mg/kg | <0.10 | <0.10 | <0.10 |
| TPH (C10-C12 aliphatic) | T206 | M105 | 1 | mg/kg | <1 | <1 | <1 |
| TPH (C12-C16 aliphatic) | T206 | M105 | 2 | mg/kg | <2 | <2 | <2 |
| TPH (C16-C21 aliphatic) | T206 | M105 | 1 | mg/kg | <1 | <1 | <1 |
| TPH (C21-C35 aliphatic) | T206 | M105 | 4 | mg/kg | <4 | <4 | <4 |
| TPH (C35-C44 aliphatic) | T8 | M105 | 1 | mg/kg | <1 | <1 | <1 |
| TPH (Aliphatic) total | T85 | M105 | | mg/kg | N.D. | N.D. | N.D. |
| TPH (C6-C7 aromatic) | T209 | M105 | 0.10 | mg/kg | <0.10 | <0.10 | <0.10 |
| TPH (C7-C8 aromatic) | T209 | M105 | 0.10 | mg/kg | <0.10 | <0.10 | <0.10 |
| TPH (C8-C10 aromatic) | T209 | M105 | 0.10 | mg/kg | <0.10 | <0.10 | <0.10 |
| TPH (C10-C12 aromatic) | T206 | M105 | 1 | mg/kg | <1 | <1 | <1 |
| TPH (C12-C16 aromatic) | T206 | M105 | 1 | mg/kg | <1 | <1 | <1 |
| TPH (C16-C21 aromatic) | T206 | M105 | 1 | mg/kg | <1 | <1 | <1 |
| TPH (C21-C35 aromatic) | T206 | M105 | 1 | mg/kg | <1 | <1 | <1 |
| TPH (C35-C44 aromatic) | T8 | M105 | 1 | mg/kg | <1 | <1 | <1 |
| TPH (Aromatic) total | T85 | M105 | | mg/kg | N.D. | N.D. | N.D. |
| TPH (Aliphatic+Aromatic) (sum) | T85 | M105 | | mg/kg | N.D. | N.D. | 1.0 |

| SAL Reference: 394134 Project Site: 18No. Plots, Kings Lynn Customer Reference: 30078 | | | | | | | |
|---|--------|-----------------------|-----------------------|-------------|------|------|------|
| Soil Analysed as Soil | | | | | | | |
| Total and Speciated USEPA16 PAH | | | | | | | |
| SAL Reference | | 394134 001 | 394134 002 | 394134 003 | | | |
| Customer Sample Reference | | Topsoil 1 (stockpile) | Topsoil 2 (stockpile) | Topsoil 3 | | | |
| Date Sampled | | 07-MAY-2014 | 07-MAY-2014 | 07-MAY-2014 | | | |
| Type | | Topsoil | Topsoil | Topsoil | | | |
| Determinand | Method | Test Sample | LOD | Units | | | |
| Naphthalene | T207 | M105 | 0.1 | mg/kg | <0.1 | <0.1 | <0.1 |
| Acenaphthylene | T207 | M105 | 0.1 | mg/kg | <0.1 | <0.1 | <0.1 |
| Acenaphthene | T207 | M105 | 0.1 | mg/kg | <0.1 | <0.1 | <0.1 |
| Fluorene | T207 | M105 | 0.1 | mg/kg | <0.1 | <0.1 | <0.1 |
| Phenanthrene | T207 | M105 | 0.1 | mg/kg | <0.1 | <0.1 | 0.2 |
| Anthracene | T207 | M105 | 0.1 | mg/kg | <0.1 | <0.1 | <0.1 |
| Fluoranthene | T207 | M105 | 0.1 | mg/kg | 0.2 | <0.1 | 0.3 |
| Pyrene | T207 | M105 | 0.1 | mg/kg | 0.1 | <0.1 | 0.3 |
| Benzofluoranthene | T207 | M105 | 0.1 | mg/kg | <0.1 | <0.1 | <0.1 |
| Chrysene | T207 | M105 | 0.1 | mg/kg | <0.1 | <0.1 | <0.1 |
| Benzobkifluoranthene | T207 | M105 | 0.1 | mg/kg | 0.1 | <0.1 | 0.1 |
| Benzofluoranthene | T207 | M105 | 0.1 | mg/kg | <0.1 | <0.1 | <0.1 |
| Indeno(1,2,3-cd)Pyrene | T207 | M105 | 0.1 | mg/kg | <0.1 | <0.1 | <0.1 |
| Dibenzofluoranthene | T207 | M105 | 0.1 | mg/kg | <0.1 | <0.1 | <0.1 |
| Benzofluoranthene | T207 | M105 | 0.1 | mg/kg | <0.1 | <0.1 | <0.1 |
| PAH(total) | T207 | M105 | 0.1 | mg/kg | 0.4 | <0.1 | 0.9 |



Case study ?

- Condition discharged

CONCLUSIONS

On the basis of the above information it is considered that the recommendations within our RMS have been generally adhered to within the soft landscaping areas of the development, and evidence of remedial capping placed within the soft landscaping has demonstrated compliance with the requirements of the RMS.

We therefore consider that the required remedial measures applicable to the soft landscaping areas within the 18No. plot development have been appropriately implemented.

REGULATORY CONSULTATION

We would recommend that a copy of this validation letter is issued (by the Client) to the Local Planning Authority (BCKL&WN) and the NHBC for comment/approval, and to facilitate the discharge of the relevant planning condition for the development.

COMMENTS

This letter concludes the validation works for the 18No. plot development, and no further validation works are considered to be necessary for the site.

We trust the above report is suitable for your current requirements; however should you have any questions or queries please do not hesitate to contact us.



Case study 2

From: Fabia Pollard
Sent: 13 September 2019 16:07
Subject: RE: PE30 5GE

Due to the previous industrial use of the land, conditions were placed on planning permission requiring investigation and remediation of any contamination. This was carried out. The Environmental Quality Team were consulted on each stage of the works and received sufficient information to recommend that the conditions relating to contamination could be discharged. We do not intend to revisit the site under Part 2A of the Environmental Protection Act and do not consider the land to be contaminated land.

All reports and correspondence with planners is available on our website under planning reference 09/02010/F. I understand that during development the above address was identified as Plot X and the relevant discharge of conditions application was DISC_M. I have attached the verification report from the public record.

regards

Fabia Pollard RSoBRA
Scientific Officer
Environmental Quality
Environment & Planning



When? Condition discharge

- **lines of evidence used to verify completion - include how remediation objectives & criteria have been met**
- **an updated conceptual model to demonstrate that all pollutant linkages have been mitigated**
- Adequate information, prepared by a competent person
- Not capable of being determined as contaminated land under Part IIA EPA1990



When

- Conditions discharged
- Public record
- Buyers happy
- Lender satisfied
- Good to go





[Home](#) > [Food, safety and environment](#) > [Pollution](#) > [Contaminated land](#) > [Planning applications on contaminated land](#)

Planning applications on contaminated land

How to carry out a contaminated land assessment as part of a planning application

Dealing with land contamination

Most development takes place on land that has already had one use. The [National Planning Policy Framework](#) (NPPF) sets out the government's policy on dealing with land contamination through the planning process. The NPPF states that:

- a development site should be suitable for its new use
- responsibility for securing a safe development rests with the developer and/or landowner

Planning authority will take into account ground you must submit adequate site investigation the application.

the information needed to support your it the information, you may need to hire an

you'll be asked if:

- the land is known to be contaminated
- contamination is suspected for all or part of the site, or
- the proposed use is particularly vulnerable to contamination

For any sites that have had a use that could cause contamination we'll need additional information with your planning application. Please see our tables for what we require.

Requirements for types of development on potentially contaminated land

| Type of development | Submit with your planning application |
|-------------------------------------|---|
| New build | Desk study and preliminary risk assessment report |
| Site with previous agricultural use | Screening assessment form |

Sensitive developments

If the proposed use is particularly vulnerable to the presence of contamination, you'll need to submit the following with your application:

Recently visited pages

- [Contaminated land](#)
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- [Contaminated Land Part 2A](#)

Land contamination investigations

Updated January 2019

Borough Council of
King's Lynn &
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