

Contaminated Land Remediation

Learning Outcome	Assessment Criteria	Source
1. Understand the purpose of a site remediation strategy	1.1 Explain the role of: <ul style="list-style-type: none"> - The options appraisal - The remediation strategy - The implementation plan - The verification plan - The monitoring and maintenance plan 	Model Procedures for the Management of Land Contamination Practice guide – redeveloping land affected by contamination Land contamination: risk management https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm/lcrm-stage-2-options-appraisal https://www.daera-ni.gov.uk/sites/default/files/publications/daera/Practice%20Guide%20-%20Redeveloping%20Land%20Affected%20by%20Contamination%20April%202019.pdf https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm/lcrm-stage-3-remediation-and-verification
	1.2 Describe when flooding risk should be considered within contaminate land remediation risk appraisal, strategy, and implementation	
	1.3 State the hierarchy of assessment options to be followed	
2. Understand in-situ and ex-situ remediation	2.1 State the legal definition of waste in relation to contaminated land remediation	https://www.legislation.gov.uk/nisi/1997/2778/article/49/made LCRM: Stage 2 options appraisal https://www.daera-ni.gov.uk/articles/contaminated-land Model Procedures for the Management of Land Contamination Practice guide – redeveloping land affected by contamination https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm/lcrm-stage-3-remediation-and-verification
	2.2 Define: <ul style="list-style-type: none"> - In-situ remediation - Ex-situ remediation 	
	2.3 Explain why it is important to select a range of remediation techniques as part of the options appraisal	
	2.4 Describe the environmental impacts associated with in-situ and ex-situ remediation techniques.	



Together, we stand for
a world beyond waste

	2.5 Describe the control measures to reduce or eliminate risks to the environment	https://www.netregs.org.uk/environmental-topics/nuisances/nuisance-from-dust-insects-noise-odour-and-pathogens/dust-nuisance/
3. Understand the process for deployment of mobile plant	3.1 Describe what an operator deploying a mobile plant is required to do prior to moving to a new site	https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm/lcrm-stage-1-risk-assessment https://www.daera-ni.gov.uk/sites/default/files/publications/doe/land-form-deployment-form-mobile-treatment-licence-2008.pdf
	3.2 List the information a conceptual site model (CSM) should contain when submitting a deployment form	
	3.3 Explain why acceptance procedures need to be specified on a deployment form	
	3.4 Describe how to identify authorised treatment technologies when completing a deployment form	
	3.5 Describe the monitoring requirements that need to be included in a deployment form	
	3.6 State how long an activity can take place for under a deployment form	
4. Understand the waste management licence or permit requirements in relation to contaminated land remediation activities	4.1 Describe the storage and bunding requirements for: <ul style="list-style-type: none"> - Aqueous liquids - Non-aqueous phase liquid (NAPL) - Fuels and oils 	https://www.netregs.org.uk/environmental-topics/materials-fuels-and-equipment/oil-and-fuel-storage/secondary-containment-systems-bunding/ https://www.daera-ni.gov.uk/sites/default/files/publications/doe/land-form-deployment-form-mobile-treatment-licence-2008.pdf
	4.2 Explain what actions to take if you are planning a remediation technique which is not permitted under a licence or permit	



Together, we stand for
a world beyond waste

	<p>4.3 Identify the waste types that can be stored or treated on a mobile plant</p> <p>4.4 Describe the limitations for the mobile plant in terms of:</p> <ul style="list-style-type: none"> - Water abstraction - The limit above which abstraction requires a licence or permit 	
5. Understand the requirements for waste disposal in relation to contaminated land remediation activities	5.1 Describe the limitations placed on wastes sent off-site for disposal in a landfill	https://www.legislation.gov.uk/eudr/1999/31/article/5 https://www.gov.uk/guidance/dispose-of-waste-to-landfill https://www.daera-ni.gov.uk/sites/default/files/publications/doe/duty-of-care-code-of-practice-june2016.pdf
	5.2 List the documentation required for off-site waste treatment and disposal	https://www.daera-ni.gov.uk/sites/default/files/publications/daera/Practice%20Guide%20-%20Redeveloping%20Land%20Affected%20by%20Contamination%20April%202019.pdf
	5.3 State the type of accreditation a soil testing laboratory must have	https://www.legislation.gov.uk/nisr/2003/496/schedule/1/made https://www.daera-ni.gov.uk/sites/default/files/publications/daera/WM3%20NI%20v1.2.pdf
	5.4 List the waste acceptance criteria for depositing waste soils at an inert landfill	https://www.legislation.gov.uk/nisr/2003/496/schedule/1/made
	5.5 List the Persistent Organic Pollutants (POPs) that are considered when determining where a waste is hazardous	https://www.daera-ni.gov.uk/sites/default/files/publications/daera/AIRE%20Asbestos%20in%20Soil%20and%20Construction%20&%20Demolition%20Materials.pdf
	5.6 Describe how to manage asbestos:	https://www.gov.uk/guidance/dispose-of-waste-to-landfill#basic-characterisation
6. Understand how to manage emissions from contaminated land remediation activities	6.1 Describe the requirements for controlling:	https://www.netregs.org.uk/environmental-topics/nuisances/noise-odour-and-other-nuisances/noise-and-vibration-nuisances/#:~:text=Noise%20and%20vibration%20caused%20by,to%20avoid%20causing%20a%20nuisance
	6.2 Define Japanese knotweed	https://www.daera-ni.gov.uk/sites/default/files/publications/daera/Guidance%20-



	<p>6.3 Describe the actions to take if:</p> <ul style="list-style-type: none"> - Japanese knotweed is located - Groundwater is encountered during the excavation of contaminated soils - Unexpected water flow is experienced during excavations - A fuel tank leaks in the plant compound 	<p>%20Noise%20and%20vibration%20management%20-%20environmental%20permits%20-%20July...pdf https://assets.publishing.service.gov.uk/media/5a7ba9a2ed915d1311060b16/geho0411btqm-e-e.pdf https://www.netregs.org.uk/environmental-topics/nuisances/nuisance-from-dust-insects-noise-odour-and-pathogens/dust-nuisance/H4 Odour Management How to comply with your environmental permit https://www.netregs.org.uk/environmental-topics/land/japanese-knotweed-giant-hogweed-and-other-invasive-weeds/ https://invasivespeciesni.co.uk/species-accounts/established/terrestrial/japanese-knotweed https://www.gov.uk/guidance/prevent-japanese-knotweed-from-spreading links to https://www.nidirect.gov.uk/articles/invasive-non-native-plants https://www.netregs.org.uk/environmental-topics/water/more-ways-to-prevent-water-pollution/discharges-to-water-and-sewer/ https://www.netregs.org.uk/environmental-topics/air-pollution/solvent-emissions/what-is-an-organic-solvent/</p>
<p>7. Understand the main causes of accidents at a contaminated land remediation site and how to prevent them</p>	<p>7.1 Identify the causes of accidents on a contaminated land remediation site</p> <p>7.2 Identify the methods used to prevent accidents on a contaminated land remediation site</p>	<p>https://www.hseni.gov.uk/articles/provision-and-use-work-equipment-regulations-northern-ireland-1999-puwer https://www.hseni.gov.uk/topic/workplace-transport https://www.hseni.gov.uk/topic/noise https://www.hse.gov.uk/pubns/priced/l108.pdf</p>
<p>8. Understand how to deal with complaints</p>	<p>8.1 Describe the actions that should be taken if a member of staff or the public identify a potential area of non-compliance or make a complaint (e.g. regarding noise)</p>	<p>https://www.netregs.org.uk/environmental-topics/nuisances/noise-odour-and-other-nuisances/good-practice-to-avoid-causing-nuisance/</p>

