



SITE ENVIRONMENTAL RISK ASSESSMENT

Project Name:	Llandarcy Asphalt Plant			Project No:			
Location:	Llandarcy	Assessment Date:	05/07/2022	Assessment No:	1	Revision:	0
Assessor's Name:	Craig Thomas	Signature:		Review Frequency:	6 monthly	Last Review Date:	

Source or Aspect of work	Applica ble	Summary of hazard	Initial Risk Rating			Action to be taken	Initial Risk Rating			Comments on residual risks of 6 or more and Additional information where relevant
			L	C	Total		L	C	Total	
Site Establishment :										
Site office layout:		Visual impact or pollution to river	3	2	6	Offices set upin existing office facilities and stores set up on the boundary furthest from the river to lessen impact.	1	2	2	
Wastewater and sewerage connections:		Leakage of wastewater or sewage onto land or into surface water causing pollution	3	4	12	Use existing facilities within the office. Stores and refuelling area at least 10m from draiange and river with bunded tanks.	1	4	4	
Securing the site:		Vandalism causing pollution to land or water, or damage to material causing waste	5	4	20	Install heras fencing on open boundary and store materials and plant to prevent vandalism.Boundary inspections form part of sites daily check list.	1	4	4	Investigate installing security cameras earlier during construction phase.
Wildlife protection:		If areas not cordoned off, damage to habitat, flora and fauna could occur	2	2	4	Work within existing brownfield industrial site. Vegetation strips left in place around watercourses to prevent silt entering streams.	1	2	2	
Material storage:		Inappropriate storage causing pollution, wastage, double handling or disruption.	4	3	12	Storage areas kept on the boundary furthest from the river. Store materials in locked cabins. Fuel, chemicals, and oils double bunded. Spill kits at fuel points and stores.	1	3	3	
Noise and vibration :										
General activities:		Normal construction activities causing nuisance to local community / environment	4	3	12	Switch off plant when not in use. Position away from site boundaries. No work before 0800 and no night time work.	1	3	3	
Out-of-hours working:		Out-of-hours activities causing nuisance to local community / environment	3	2	6	Pre-notify neighbours, minimise deliveries and plan noisy work for normal hours	1	2	2	
Traffic:		Traffic movements causing nuisance to local community / environment	5	2	10	No deliveries before 08:30, no idling on site and pre-arrange delivery times and routes	1	2	2	
Dust and airborne pollution:										
General activities:		General construction activities causing nuisance to local community / environment	5	2	10	No burning of waste; minimise drop heights and cover dust generating loads	1	2	2	

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Exposed ground and stockpiles:		Exposed ground / stockpiles causing nuisance in dry weather to local community	4	2	8	Dampen down, position stockpiles away from sensitive areas and re-vegetate long-term stockpiles	1	2	2	
Demolition and cutting:		Demolition or cutting activities causing nuisance to local community / environment	4	2	8	Dampen down works or use dust-suppression methods of working	1	2	2	
Material storage and litter:		Material storage or litter causing nuisance to local community / environment	4	2	8	Cover dust-generating loads, keep waste in enclosed skips and secure lightweight material	1	2	2	
Traffic:		Traffic movements causing nuisance to local community / environment	5	2	10	No deliveries before 8:30, no idling on site and pre-arrange delivery times and routes	1	2	2	
Traffic and access:										
Site access/ routes and mud on roads:		Site access & causing nuisance to local community	5	2	10	Keep access roads clean, impose speed limits, and provide signage	1	2	2	
Deliveries:		Deliveries causing nuisance to local community	5	2	10	No deliveries before 8:30, no idling on site and pre-arrange delivery times and routes	1	2	2	
Traffic management:		Traffic management system causing nuisance to local community / drivers	5	2	10	Consult with local community, maintain access for landowners & residents and minimise duration	1	2	2	
Verges & footpath damage:		Plant / machinery / material storage causing damage to verges & footpaths	5	2	10	Stop parking on & protect verges and footpaths; store materials in assigned areas only. All parking within site boundary.	1	2	2	
Public Footpaths & Bridleways:		Site works causing temporary closure or re-routing of Public Footpaths or Bridleways	5	2	10	Consult with interested parties, provide temporary crossings, and provide maps & signage	1	2	2	
Water pollution:										
Fuel storage and refuelling		Spillage of fuels or oils causing water pollution, either directly or indirectly	4	5	20	Use double-bunded bowsters, refuel in set areas with spill kits & drip trays, keep under lock & key. Keep usage register	1	5	5	
Chemical storage and handling:		Spillage of chemicals causing water pollution, either directly or indirectly	4	4	16	Store chemicals in bunded areas under lock & key at least 10m away from watercourses	1	4	4	
Silty water:		Run-off from site or dewatering of excavations causing silty water to enter watercourses	3	5	15	Protect surface drains, install / use settlement ponds, filter socks, silt barriers, or discharge over grass. Vegetation strips kept in place near watercourse.	1	5	5	

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Concrete washout and concrete:		Concrete washout or concrete activities causing direct or indirect water pollution	3	5	15	Ensure concrete does not enter watercourse & construct washout using lined skip away from drains & watercourse	1	5	5	
Consents:		Working near to or in, or discharging into, a watercourse without consent	5	4	20	Ensure consent sought & granted before working near to or in, or discharging into, a watercourse	1	4	4	Ordinary watercourse consent from local authority (NPTBC) and agreed method of work.
Land pollution										
Fuel storage and refuelling:		Spillage of fuels or oils causing land pollution, either directly or indirectly	4	5	20	Use double-bunded bowsters, refuel in set areas with spill kits & drip trays, keep under lock & key	1	5	5	
Chemical storage and handling:		Spillage of chemicals causing land pollution, either directly or indirectly	4	4	16	Store chemicals in bunded areas under lock & key at least 10m away from watercourses	1	4	4	COSHH store kept permanently locked in office. Key must be requested and returned.
Concrete washout:		Concrete washout causing land pollution	3	5	15	Construct washout point away from drains & watercourses complete with liner	1	5	5	
Degradation of topsoil:		Topsoil degraded due to mixing with subsoil or being stored in piles higher than 2m	3	3	9	Store topsoil and subsoil separately and keep stockpiles less than 2m high. All other stockpiles will be below boundary height.	1	3	3	
Contaminated land:		Contaminated land not being correctly disposed of or causing further contamination	3	4	12	Work stopped and area fenced off if hazardous materials are suspected. Seek advice. Dispose of in accordance with legal requirements	1	4	4	
Ecology and Heritage:										
Trees and hedgerows:		Working in the vicinity of, or requiring the removal of, trees or hedgerows	5	4	20	Avoid tree felling during nesting season. Consult and obtain consents if required.	1	4	4	
Protected species:		Working within an area with protected species present	2	5	10	Consult environmental impact assessment and carry out mitigation as required	1	5	5	
Other wildlife:		Working in an area with possible contact with wildlife	2	4	8	Do not harm, injure or handle, avoid unnecessary disturbance, let them leave area of their own accord	1	4	4	
Invasive plants:		Working within an area with invasive plants	5	4	20	Consult with specialists, undertake mitigation, ensure waste disposed of correctly	1	4	4	
Reduce, re-use and recycle:										



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Storage of material for re-use:		Long term storage of material for reuse causing dust and run-off nuisance	5	3	15	Locate away from sensitive areas, drains and watercourses, & re-vegetate long-term stockpiles. Cut off ditches at base of stockpiles to intercept silty run-off.	1	3	3	
Segregation of waste:		Non segregation reduces reuse and recycling opportunities	2	3	6	Segregated skips provided to facilitate correct disposal and recycling opportunities	1	3	3	
Waste management:										
Storage & disposal of controlled waste:		Waste not stored / disposed of correctly resulting in escape, leakage or illegal disposal	3	4	12	Store waste in secure covered skips. Use registered carriers, transfer stations and disposal sites	1	4	4	
Storage & disposal of hazardous waste		Waste not stored / disposed of correctly resulting in escape, leakage or illegal disposal	3	4	12	Store waste in secure locked containers, use registered carriers, transfer stations and disposal sites	1	4	4	
Disposal of decommissioned machinery / plant:		Decommission machinery / plant is contaminated and/or requires drain down	3	4	12	Method statements to be produced noting how to be disposed of, including drain down	1	4	4	
Disposal of test / commissioning water / fluids:		Water / fluids incorrectly disposed of or treated resulting in pollution incident	3	4	12	Method statements to be produced noting how water / fluids to be treated or disposed of	1	4	4	
Sub-contractors' waste:		Sub-contractors not storing and disposing of their waste in a correct & legal manner	3	4	12	Induct all sub contractors. They will use segregated skips provided.	1	4	4	
Project-specific or third-party requirements: (give details)										
					0				0	
					0				0	
					0				0	
					0				0	
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GUIDANCE NOTE:

The Site Environmental Risk Assessment (SERA) lists the principal 'sources' or 'aspects of work' that could give rise to an environmental incident. If any other project-specific activities exist that could cause an environmental incident to occur, these should be added to the last section. It is important to ensure that all aspects of work are considered, including normal, abnormal and emergency situations.

1. For each listed or added 'Source' or 'Aspect of work', assess whether it is applicable to the project and, if it is, put 'Y' in the 'Applicable' column and summarise the hazard in the next column. Where it is not, put 'N' in the 'Applicable' column and leave the rest of the row blank.

2. For each applicable 'source' or 'aspect', undertake an initial review and assess the 'likelihood' of it occurring and the 'consequence' if it did occur. Assign scores in range of 1 to 5 to each attribute of each aspect, using the appropriate 'Risk rating table'.

3. Multiply the 'likelihood' and 'consequence' scores together to produce an 'Initial risk rating'.

4. In the 'Action to be taken' column, detail the actions or controls that will be implemented to reduce the 'likelihood' or 'consequence' of the incident occurring. These actions should be listed in the Site Environmental Plan or Poster (SEP / SEPo).

5. Now re-assess each 'source' or 'aspect' for 'likelihood' and 'consequence' with the controls in place and assign a score between 1 and 5 using the appropriate table.

6. Multiply these new scores to produce the 'Residual risk rating' and record this in the associated column.

7. If the 'Residual risk rating' is 6 or above, comment on the additional controls and actions to be taken to reduce, where possible, the risk of the incident occurring.

8. Prioritise actions for the most significant risks.

9. Review the SERA regularly — normally monthly (but dependent on site conditions) — and also when project conditions change or a new element of work starts.

10. Incorporate the highest scoring risks into daily or weekly checks.

Examples have been included for the 'Summary of hazard' and the 'Action to be taken'.

These are indicative only and do not cover all situations. Each aspect must be reviewed with regard to the actual conditions on site, the resultant hazards that exist, and the relevant actions that need to be taken to reduce the likelihood of an environmental incident occurring.

Likelihood of an Environmental Incident occurring:

Likelihood	Description	L score
Likely	Occurs repeatedly / event 'only to be expected'	5
Probable	'No surprise' / will occur several times	4
Possible	Could occur sometimes	3
Remote	Unlikely, though conceivable	2
Improbable	So unlikely that probability is close to zero	1

Environmental Consequences of an Incident occurring:

Consequence	Description of environmental impact	C score
Catastrophic	Major damage on and off site, national reputation damage, prosecution inevitable	5
Permanent	Considerable environmental damage, prosecution and national reputation damage likely	4
Moderate	Moderate impact, contamination or damage recoverable, local reputation damage, prosecution possible	3
Minor	Slight impact, small scale event contained on site, possible local media interest, prosecution unlikely	2
Slight	No measurable environmental consequence, no reputation damage, zero likelihood of prosecution	1



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Action to be taken											
16-25		Work can only continue if control measures reduce the risk rating to an acceptable level		6-16	Introduce control measures to reduce risk as low as reasonably practicable		1-5			Risk broadly acceptable, but situation needs to be monitored for changes and action to reduce risk	