

## **Appendix 7S**

Evaluation of impacts on  
Important Ecological Receptors

## Appendix 7S

### S1 Evaluation of Impacts on Important Ecological Receptors

Table 7.143: Evaluation of impacts on IEF, where impacts are likely to occur on the future baseline. The significance of effects presented in the right hand columns, both adverse and beneficial, is determined by both using the CIEEM EcIA methodology.

Important Ecological Receptors	Value of receptor	Potential impact during construction	Potential impact during operation	Significant of potential impact without mitigation	Mitigation and enhancement measures	Monitoring required (Y / N)	Short term (<10 years) significance of potential impact further to implementation of mitigation including enhancements	Long term (>20-30 years) significance of potential impact further to implementation of mitigation including enhancements	Residual effects
<b>Future Baseline</b>									
<b>Designated sites</b>									
<b>Designated National Sites - Nant Llech and Gors Llyn SSSI</b>	National	Habitat degradation	Habitat degradation	Significant	Implementation of standard air and water quality pollution control measures during site clearance, construction and operation. Details to be provided within CEMP / EPP	N	Not significant	Not significant	N

Important Ecological Receptors	Value of receptor	Potential impact during construction	Potential impact during operation	Significant of potential impact without mitigation	Mitigation and enhancement measures	Monitoring required (Y / N)	Short term (<10 years) significance of potential impact further to implementation of mitigation including enhancements	Long term (>20-30 years) significance of potential impact further to implementation of mitigation including enhancements	Residual effects
					and long term management / monitoring plan.				
Onllwyn Coal Washery	County	Habitat loss and habitat degradation / disturbance	Habitat degradation and disturbance	Significant	<p>Small-scale habitat creation within the Washery. Establishment of short including swales etc, and species rich acid grassland on railway embankments. Retained marshy grassland and species rich grassland within the washery to be enhanced through management. Habitats will be subject to long term monitoring.</p> <p>Implementation of standard air and water quality pollution</p>	N	Not significant	Not significant	N

Important Ecological Receptors	Value of receptor	Potential impact during construction	Potential impact during operation	Significant of potential impact without mitigation	Mitigation and enhancement measures	Monitoring required (Y / N)	Short term (<10 years) significance of potential impact further to implementation of mitigation including enhancements	Long term (>20-30 years) significance of potential impact further to implementation of mitigation including enhancements	Residual effects
					<p>control measures during site clearance, construction and operation. Details to be provided within CEMP, EMMP and EPP.</p> <p>Protection of adjacent habitats during construction and operation through establishment of buffer zones and use of fencing. Details to be provided within EPP and EMMP.</p>				
<b>Gorsllwyn meadow and Duffryn Cellwen SINC</b>	County	Habitat degradation	Habitat degradation	Significant	Implementation of standard air and water quality pollution control measures during site clearance, construction and operation. Details to be provided within CEMP / EPP	N	Not significant	Not significant	N

Important Ecological Receptors	Value of receptor	Potential impact during construction	Potential impact during operation	Significant of potential impact without mitigation	Mitigation and enhancement measures	Monitoring required (Y / N)	Short term (<10 years) significance of potential impact further to implementation of mitigation including enhancements	Long term (>20-30 years) significance of potential impact further to implementation of mitigation including enhancements	Residual effects
					and long term management / monitoring plan.				
<b>Ancient woodland</b>	County	Habitat degradation / disturbance	Habitat degradation / disturbance	Significant	<p>Implementation of standard air and water quality pollution control measures during site clearance, construction and operation. Details to be provided within CEMP / EPP and long term management / monitoring plan.</p> <p>Protection of ancient woodland during construction / operation through establishment of buffer zones and use of fencing. Details to be provided within EPP, CEMP and EMMP.</p>	N	Not significant	Not significant	N

Important Ecological Receptors	Value of receptor	Potential impact during construction	Potential impact during operation	Significant of potential impact without mitigation	Mitigation and enhancement measures	Monitoring required (Y / N)	Short term (<10 years) significance of potential impact further to implementation of mitigation including enhancements	Long term (>20-30 years) significance of potential impact further to implementation of mitigation including enhancements	Residual effects
<b>Notable Habitats</b>									
Mosaic of habitats in the Washery: species rich grassland, heathland and standing water.	County	Habitat loss and habitat degradation / disturbance	Habitat degradation and disturbance	Significant	Small-scale habitat creation within the Washery. Establishment of short including swales etc, and species rich acid grassland on railway embankments. Retained marshy grassland and species rich grassland within the washery to be enhanced through management. Habitats will be subject to long term monitoring.  Implementation of standard air and water quality pollution	N	Not significant	Not significant	N

Important Ecological Receptors	Value of receptor	Potential impact during construction	Potential impact during operation	Significant of potential impact without mitigation	Mitigation and enhancement measures	Monitoring required (Y / N)	Short term (<10 years) significance of potential impact further to implementation of mitigation including enhancements	Long term (>20-30 years) significance of potential impact further to implementation of mitigation including enhancements	Residual effects
					<p>control measures during site clearance, construction and operation. Details to be provided within CEMP, EMMP and EPP.</p> <p>Protection of adjacent habitats during construction and operation through establishment of buffer zones and use of fencing. Details to be provided within EPP and EMMP.</p>				
Mosaic of retained and newly created habitats in Nant helen: marshy grassland, heathland, and	County	Habitat degradation / disturbance and habitat fragmentation	Habitat degradation / disturbance and habitat fragmentation.	Significant	<p>Re-siting of proposed new waterbodies within the Nant Helen site, to avoid impacts from the road.</p> <p>Implementation of standard air and water quality pollution</p>	N	Not significant	Not significant	N

Important Ecological Receptors	Value of receptor	Potential impact during construction	Potential impact during operation	Significant of potential impact without mitigation	Mitigation and enhancement measures	Monitoring required (Y / N)	Short term (<10 years) significance of potential impact further to implementation of mitigation including enhancements	Long term (>20-30 years) significance of potential impact further to implementation of mitigation including enhancements	Residual effects
peatland – bog habitats					<p>control measures during site clearance, construction and operation. Details to be provided within CEMP, EMMP and EPP.</p> <p>Protection of adjacent habitats during construction and operation through establishment of buffer zones and use of fencing. Details to be provided within EPP and EMMP.</p> <p>Habitats will be subject to long term management and monitoring.</p>				
<b>Species</b>									



Important Ecological Receptors	Value of receptor	Potential impact during construction	Potential impact during operation	Significant of potential impact without mitigation	Mitigation and enhancement measures	Monitoring required (Y / N)	Short term (<10 years) significance of potential impact further to implementation of mitigation including enhancements	Long term (>20-30 years) significance of potential impact further to implementation of mitigation including enhancements	Residual effects
<b>Fungi</b>	County / local	Habitat loss and habitat degradation / disturbance	Habitat degradation / disturbance	Significant	<p>Implementation of standard air and water quality pollution control measures during site clearance, construction and operation.</p> <p>Protection of fungi-rich habitats adjacent to clearance / construction activities.</p> <p>Establishment of short, species rich grassland on railway embankments, and where possible small scale habitat creation in the Washery through the re-use of coal spoil and or other suitable substrate. Habitats will be subject to long term management including scrub control, and monitoring.</p>	Y	Significant	Not significant	N

Important Ecological Receptors	Value of receptor	Potential impact during construction	Potential impact during operation	Significant of potential impact without mitigation	Mitigation and enhancement measures	Monitoring required (Y / N)	Short term (<10 years) significance of potential impact further to implementation of mitigation including enhancements	Long term (>20-30 years) significance of potential impact further to implementation of mitigation including enhancements	Residual effects
<b>Invertebrates</b>	County	Habitat loss, and habitat disturbance / degradation	Habitat degradation / disturbance, and harm / mortality	Significant	<p>Avoidance of use of devils bit scabious in planting scheme for Nant Helen restoration.</p> <p>Implementation of standard air and water quality pollution control measures during site clearance, construction and operation. Protection of adjacent retained habitats during construction and operation.</p> <p>Small-scale habitat creation within the Washery.</p> <p>Establishment of short, species rich grassland on railway embankments.</p> <p>Habitats will be subject to</p>	Y	Not significant	Not significant	N (minor collision risk not considered significant to populations)

Important Ecological Receptors	Value of receptor	Potential impact during construction	Potential impact during operation	Significant of potential impact without mitigation	Mitigation and enhancement measures	Monitoring required (Y / N)	Short term (<10 years) significance of potential impact further to implementation of mitigation including enhancements	Long term (>20-30 years) significance of potential impact further to implementation of mitigation including enhancements	Residual effects
					<p>long term management and monitoring.</p> <p>Opportunities to be sought for additional habitat provision on green / brown roofs within the Washery.</p>				
<b>Amphibians</b>	Local	Habitat loss, habitat degradation, habitat fragmentation and harm / mortality	Habitat degradation, and harm / mortality	Not significant	<p>Implementation of standard air and water quality pollution control measures during site clearance, construction and operation. Protection of adjacent retained habitats during construction and operation.</p> <p>Sensitive clearance of vegetation (in accordance with reptile clearance methods).</p>	N	Not significant	Not significant	N (minor collision risk not considered significant to populations)

Important Ecological Receptors	Value of receptor	Potential impact during construction	Potential impact during operation	Significant of potential impact without mitigation	Mitigation and enhancement measures	Monitoring required (Y / N)	Short term (<10 years) significance of potential impact further to implementation of mitigation including enhancements	Long term (>20-30 years) significance of potential impact further to implementation of mitigation including enhancements	Residual effects
					<p>Small-scale habitat creation within the Washery. Establishment of short, species rich grassland on railway embankments. Habitats will be subject to long term management and monitoring.</p> <p>Opportunities for additional habitat provision in SuDS. Any reptile refugia created would also be suitable for amphibians.</p>				
<b>Reptiles</b>	Local	Habitat loss, degradation, habitat fragmentation	Habitat degradation, and harm / mortality	Not significant	Implementation of standard air and water quality pollution control measures during site clearance, construction and operation. Protection of adjacent retained habitats	N	Not significant	Not significant	N (minor collision risk not considered significant)

Important Ecological Receptors	Value of receptor	Potential impact during construction	Potential impact during operation	Significant of potential impact without mitigation	Mitigation and enhancement measures	Monitoring required (Y / N)	Short term (<10 years) significance of potential impact further to implementation of mitigation including enhancements	Long term (>20-30 years) significance of potential impact further to implementation of mitigation including enhancements	Residual effects
		and harm / mortality			<p>during construction and operation.</p> <p>Sensitive clearance of vegetation, and reptile translocation programme.</p> <p>Small-scale habitat creation within the Washery.</p> <p>Establishment of short, species rich grassland on railway embankments.</p> <p>Habitats will be subject to long term management and monitoring.</p> <p>Opportunities for additional habitat provision through creation of reptile refugia.</p>				nt to populations)

Important Ecological Receptors	Value of receptor	Potential impact during construction	Potential impact during operation	Significant of potential impact without mitigation	Mitigation and enhancement measures	Monitoring required (Y / N)	Short term (<10 years) significance of potential impact further to implementation of mitigation including enhancements	Long term (>20-30 years) significance of potential impact further to implementation of mitigation including enhancements	Residual effects
<b>Birds (Breeding and Wintering)</b>	Local	Habitat loss, degradation, disturbance and harm / mortality	Habitat degradation, disturbance and harm / mortality.	Not significant	<p>Implementation of standard air and water quality pollution control measures during site clearance, construction and operation. Protection of adjacent retained habitats during construction and operation.</p> <p>Sensitive clearance of vegetation and pre-clearance checks for nesting birds, ensuring suitable buffers provided to protect any nesting birds from disturbance where necessary.</p> <p>Small-scale habitat creation within the Washery.</p> <p>Establishment of short, species rich grassland on</p>	Y	Not significant	Not Significant	N (minor collision risk not considered significant to populations)

Important Ecological Receptors	Value of receptor	Potential impact during construction	Potential impact during operation	Significant of potential impact without mitigation	Mitigation and enhancement measures	Monitoring required (Y / N)	Short term (<10 years) significance of potential impact further to implementation of mitigation including enhancements	Long term (>20-30 years) significance of potential impact further to implementation of mitigation including enhancements	Residual effects
					railway embankments. Habitats will be subject to long term management and monitoring.  Barn owl box to be provided >3 km from the Site.  Opportunities for additional habitat provision through creation of bird boxes on buildings and trees within / adjacent to the Site.				
Badger	Local	Habitat loss, degradation, disturbance, habitat fragmentation	Habitat degradation, disturbance and harm / mortality	Not significant	Sensitive clearance of vegetation and pre-clearance checks for badgers.  Closure of badger setts under licence, in accordance with approved method statement.	N	Not significant	Not significant	N (minor collision risk not considered significant)

Important Ecological Receptors	Value of receptor	Potential impact during construction	Potential impact during operation	Significant of potential impact without mitigation	Mitigation and enhancement measures	Monitoring required (Y / N)	Short term (<10 years) significance of potential impact further to implementation of mitigation including enhancements	Long term (>20-30 years) significance of potential impact further to implementation of mitigation including enhancements	Residual effects
		and harm / mortality			<p>Mitigation during construction and operation comprising sensitive lighting and limiting construction vehicles to low speeds. In addition, there will be the provision of ramps in open excavations where necessary, during construction.</p> <p>Opportunities for providing connectivity beneath tracks, through appropriate culvert provision.</p>				populations)
Otter	Local	Habitat loss, degradation, disturbance, habitat fragmentation	Habitat degradation, disturbance, harm / mortality	Not significant	Implementation of standard air and water quality pollution control measures during site clearance, construction and operation. Protection of adjacent retained habitats	N	Not significant	Not significant	N (minor collision risk not considered significant)



Important Ecological Receptors	Value of receptor	Potential impact during construction	Potential impact during operation	Significant of potential impact without mitigation	Mitigation and enhancement measures	Monitoring required (Y / N)	Short term (<10 years) significance of potential impact further to implementation of mitigation including enhancements	Long term (>20-30 years) significance of potential impact further to implementation of mitigation including enhancements	Residual effects
		n and harm / mortality			<p>during construction and operation.</p> <p>Sensitive clearance of vegetation and pre-clearance checks for otter.</p> <p>Mitigation during construction and operation comprising sensitive lighting and limiting construction vehicles to low speeds. In addition, there will be the provision of ramps in open excavations where necessary, during construction.</p> <p>Creation and enhancement of habitat mosaic post construction, providing good connectivity. Management to maintain and enhance habitats</p>				nt to populations)

Important Ecological Receptors	Value of receptor	Potential impact during construction	Potential impact during operation	Significant of potential impact without mitigation	Mitigation and enhancement measures	Monitoring required (Y / N)	Short term (<10 years) significance of potential impact further to implementation of mitigation including enhancements	Long term (>20-30 years) significance of potential impact further to implementation of mitigation including enhancements	Residual effects
					<p>through management and monitoring plan</p> <p>Provision of habitat connectivity beneath tracks, through installation of culverts suitable for otter. Landscaping implemented which directs otters through culverts.</p> <p>Opportunities for additional habitat provision through creation of otter holt within the Site or adjacent habitats.</p>				
Bats (roosting and foraging / commuting)	Local / County	Habitat loss, fragmentation, disturbance, harm / mortality	Disturbance and harm / mortality	Significant	Implementation of standard air and water quality pollution control measures during site clearance, construction and operation. Protection of adjacent retained habitats	Y	Not significant	Not significant	N (minor collision risk not considered significant)

Important Ecological Receptors	Value of receptor	Potential impact during construction	Potential impact during operation	Significant of potential impact without mitigation	Mitigation and enhancement measures	Monitoring required (Y / N)	Short term (<10 years) significance of potential impact further to implementation of mitigation including enhancements	Long term (>20-30 years) significance of potential impact further to implementation of mitigation including enhancements	Residual effects
					<p>during construction and operation.</p> <p>Sensitive clearance of vegetation and pre-clearance checks for bats in trees with low potential.</p> <p>Mitigation during construction comprising implementation of sensitive lighting scheme.</p> <p>Creation and enhancement of habitat mosaic post construction, providing good connectivity. Management to maintain and enhance habitats through management and monitoring plan</p> <p>Provision of habitat connectivity beneath tracks,</p>				<p>nt to populations)</p>

Important Ecological Receptors	Value of receptor	Potential impact during construction	Potential impact during operation	Significant of potential impact without mitigation	Mitigation and enhancement measures	Monitoring required (Y / N)	Short term (<10 years) significance of potential impact further to implementation of mitigation including enhancements	Long term (>20-30 years) significance of potential impact further to implementation of mitigation including enhancements	Residual effects
					<p>through installation of culverts suitable for bats. Landscaping implemented which directs bats through culverts.</p> <p>Opportunities for additional habitat provision through creation of bat boxes on buildings and trees within / adjacent to the Site.</p>				
Notable mammal species	Local	Habitat loss, habitat disturbance / degradation and harm / mortality	Habitat degradation / disturbance and harm / mortality	Not significant	Implementation of standard air and water quality pollution control measures during site clearance, construction and operation. Protection of adjacent retained habitats during construction and operation.	N	Not significant	Not significant	N (minor collision risk not considered significant to populations)

Important Ecological Receptors	Value of receptor	Potential impact during construction	Potential impact during operation	Significant of potential impact without mitigation	Mitigation and enhancement measures	Monitoring required (Y / N)	Short term (<10 years) significance of potential impact further to implementation of mitigation including enhancements	Long term (>20-30 years) significance of potential impact further to implementation of mitigation including enhancements	Residual effects
					<p>Mitigation during construction comprising sensitive lighting, provision of ramps in open excavations where necessary and limiting construction vehicles to low speeds.</p> <p>Sensitive lighting in place during operation.</p> <p>Creation and enhancement of habitat mosaic post construction, providing good connectivity.</p> <p>Management to maintain and enhance habitats through management and monitoring plan.</p>				

<b>Important Ecological Receptors</b>	<b>Value of receptor</b>	<b>Potential impact during construction</b>	<b>Potential impact during operation</b>	<b>Significant of potential impact without mitigation</b>	<b>Mitigation and enhancement measures</b>	<b>Monitoring required (Y / N)</b>	<b>Short term (&lt;10 years) significance of potential impact further to implementation of mitigation including enhancements</b>	<b>Long term (&gt;20-30 years) significance of potential impact further to implementation of mitigation including enhancements</b>	<b>Residual effects</b>
Invasive Non Native species (INNS)	Local	Disturbance	Disturbance		Production of INNS management plan, and implementation during site clearance and construction.  Management to maintain absence of INNS through management and monitoring plan.	Y	Not significant	Not significant	N