

Aspects and Impacts Register EF&ER02

Aspect	Activities	Impact	Controls in place	Direct Control	Indirect Control	Normal Abnormal Emergency	Significance Score	Positive +ve or Negative -	Significance Rating
Procurement	Purchasing of IT, paper, white goods Accommodation, maintenance supplies, grounds maintenance, catering, SU shop, stationary, furniture, equipment related to courses etc.	Impacts associated with purchasing - Delivery, packaging use, energy consumption of purchased item, resource use during manufacture, raw material use, carbon impact, future proofing - refurbishability of item, end disposal of item, wastage etc.	Policy & procedure Check new supplier env credentials ISO14001 accred etc. Standard Specification for items purchased. Environment considered when purchasing plant, equipment and materials. Local suppliers used where possible.	D		N	660	-ve	Medium
		waste - packaging material and item it replaces also if too much is ordered							
		energy use - equipment manufacture and use							
Suppliers	Suppliers environmental performance during manufacture of the items that they supply	How the supplier operates - Energy use, Waste production, raw material / resource use during the manufacture, pollution, legislation. Includes items such as prospectus printing etc.	Policy & procedure. Assess environmental credentials of new supplier. Tender process. Auditing. Local suppliers. Preferred suppliers.	D		N	990	-ve	High

Energy use	Energy use of PCs, printers copiers, AV equipment specialist machinery, lighting, vending machines, air con and other etc. Library 24 hour opening (Treforest) - extra energy consumption	Electricity consumption impact - power generation - Finite resource use coal and gas	Policy & procedure. Awareness. Monitoring and Measure. Sub metering. BMS heating times and control. Efficient lighting, hand driers etc. Purchasing energy considerations. Lights on PIRs, Timers etc. Air con control.	I	N	1260	-ve	High
Energy use (emergency)		Emissions of Nox Sox CO2 CO Nuclear generation - impacts associated with the waste disposal decommissioning etc. Renewables +ve	BMS alarms. Estates Help Desk. Out of Hours response. Maintenance team (Managers, Electricians, Engineers).	I	E	144	-ve	High
General Waste Recycling Hazardous Wastes	Waste and recycling Library 24 hour opening (Treforest) - extra waste production	Waste to landfill and associated impacts – leaching odours land contamination, legacy for future generations to clean up	Policy and procedures, Recycling facilities, segregation. Awareness training, Web page. Waste Contractors checks, Documentation, Monitoring, checks of the skips, local suppliers, reuse policy. Cleaning contractors - dedicated team responsible for recycling collection.	I	N	1080	-ve	High

Waste / Haz Waste (Emergency)	General waste	Waste of finite resources plastic, oil, energy to produce replacement items. All negative impacts if an item is wasted or not reused or recycled.	Emergency Procedure. Spill / haz waste procedure.	I	E	156	-ve	High
	Food waste	Contamination of waste streams - Waste of resources if material is sent to landfill when it could be recycled.						
	Cardboard	Reuse has a +ve impact						
	Paper	Recycling – diverting waste form landfill (+ve)						
	Newspapers, magazines, leaflets	Negative if waste is not segregated properly and placed into the wrong bins.						
	Cans	Green waste - returning nutrients to the ground (+ve)						
	Glass Plastic bottles Wood Metal Green waste - compost	Reduction of waste to landfill (+ve)						
Travel (Business & own fleet)	Business Travel	Air emissions associated with travel CO2 Nox Sox CO, PM10, PM2.5 etc.	Policy and procedures - Travel Plan. Flexible working. Monitoring.	D	N	960	-ve	High
	International studenets	Air travel emissions as a result of aviation	Car Share					
	Lecturers travel	Congestion issues.	Video conferencing					
	Staff travel for business purposes		Public Transport - Train, Shuttle bus					
Students travel to work placements		Bio-diesel - grounds vehicles						

			Consideration of low carbon / electric vehicles							
Travel (Commuting)	Commuting students and staff commuting to and from the University campus Part time and full time	Air emissions associated with travel CO2 Nox Sox CO, PM10, PM2.5 etc.	Policy and procedures Travel Plan.	I	N	180	-ve	Low		
		Congestion impact. Caerleon main street is an Air quality Management Zone	Web site, Maps, Discounts, Cyclescheme							
			Lift share facilities							
			Provision for cyclists							
			Parking charges							
			Incentives							
			Monitoring - Travel survey							
Water use / Effluent Waste water	Grounds NAMD Accommodation Catering Toilets	Use of water resource	Policy & procedure Awareness	D	N	300	-ve	Low		
			Efficiency measures							
		water treatment - associated impacts	Os&Ts							
		Energy use - pumping to site?	Monitoring							
		Waste water treatment, chemicals energy etc	Surveys / audits							
		Rain Water harvesting	Sub metering							
		Treatment impacts								
Transport impacts - emissions etc										
Water Emergency (Leak)	Cleaning		Sub metering Monitoring Site Maintenance checks Estates Help desk to report problems	I	E	50	-ve	High		
	Paper Furniture	Impacts associated with paper manufacture, deforestation, Chlorine content, Recycled material content	Policy & procedure Awareness							
		Production process, Resource use, transport	Efficiency measures							

Materials use and reuse	Stores	carbon	Os&Ts	D	N	480	-ve	Medium	
	Wood	FSC	Approved / preferred suppliers						
	Building materials	Recycled material content	Reuse policy for furniture						
	Grounds materials electrical equipment Vehicles		Substitution - COSHH						
Chemicals - Oils, paints, etc									
Chemical use and storage on campus	Grounds	Land contamination	Procedures	D	N	120	-ve	Low	
	Maintenance - Pesticides		Contaminated green waste to landfill						Awareness
	NAMD Photography								Substitution COSHH
	Maintenance	Water table and local water course.	Storage facility						
	Chemical use	Transport impacts – move off site to treatment facility.	Suitable Haz Waste removal company						
	Pesticides and Weed killer		Haz waste Lience						
	Photographic chemicals	Potential for contamination of land, foul sewer, local water courses.	Premises code etc.						
Paints									
School of Education									
Labs									
Other									
Emergency	Paints	Ground contamination	Procedures						
	Oils / Vehicles carpark oil sep		water table contamination						Awareness and training

Emergency spillage	Other chemicals Biodiesel	Foul sewer - local water course contamination - harm to flora and fauna	Spill Kits	I	E	120	-ve	High
Contractors	Waste produced Activities on campus and associated impacts Chemicals	Excess waste	Procedures	I	N	990	-ve	High
		Polution incident	Awareness					
		Spilage	Contractor Monitoring					
			Credetials check / Audits					
		Transport	Certificates					
New Build	Building process Waste produced Transport - materials to and from site Stat Nuisance - noise, dust etc Excess energy use	Protected species biodiversity	Policy & procedure Awareness	I	N	150	-ve	Low
			Travel Plan - Cycle public transport etc prvision.					
		Resource use raw materials						
		Energy	BMS					
			BREEAM					
		Contractors Waste and recycling Statutory Nuisance	Part L building Regs					
			Sub Meters					
			Contractor checks					
Demolition / Decomission	Demolission of buildings to build new. Moving out of a campus IBJ building Caerleon Campus etc.		Tender - environmental credentials	I	A	13	-ve	Low
			Contractor checks					
		Excess waste						
		Statutory nuisance - noise, dust potential for complaints.	Waste and recycling policy - Monitoring					
		Reuse and recycling	Furniture reuse					
	Plant and machinery - fuel use emisions	Surveys and Planning						

			Biodiversity survey etc						
Projects / Capital works	Covered by individual assessments	Resource use raw materials	Tender - environmental credentials	D	N	495	-ve	Medium	
		Energy consumption	Contractor checks						
		Waste and recycling	Waste and recycling policy - Monitoring						
		Purchasing	Furniture reuse						
		Contractors	Surveys and Planning						
			Energy Policy						
Biodiversity survey etc									
Asbestos	Asbestos on site – Located in insulation, ducts, board – White, blue Brown.	Air contamination - Asbestos fibres release to air if ingested into the lungs can lead to asbestosis.	Register, Policy, procedure, training and testing facilities	D	A	26	-ve	Low	
			Waste Carriers Registration						
			Contractor checks						
Asbestos Emissions	Emergency	Exposure to Fibres	Register, Policy, procedure, training and testing facilities	I	E	65	-ve	High	
			Training						
			Contractor control						
Legionella	Legionella bacteria present in cold and hot water systems. Can grow in systems if not heated above 60°C or kept below 20°C. Contamination atmosphere in airborne water droplets aerosol	Harm to health a person can breathe in the bacteria leading to illness and death in some cases. Contamination of the atmosphere – Legionnaires disease.	Procedure, testing, Training, Maintenance checks. Contractor competence. Monitoring, Certificates.	D	A	16	-ve	Low	

Legionella Emissions	Emergency	Exposure	Register, Policy, procedure, training and testing facilities	I	E	80	-ve	High
			Training					
			Contractor control					
Emergency flood	Emergency Flood - Flooding of the site from the nearby river. Run off from mountain. Flooding from internal equipment / water supply - Leak in pipe. Fire water run off.	Contamination of water course Damage to aquatic flora and fauna fish and other animals, eutrophication oxygen depletion BOD COD pH suspended solids, heavy metals, Turbidity etc. Harm to Otters Chad and other endangered / protected species.	Emergency procedure, training and spill kits. Security on site. On call maintenance	I	E	65	-ve	High
			Maintenance checks					
			Flood alert					
			Emergency contact numbers					
F Gasses Ozone depleting gasses	Use of Air conditioning and chillers on campus and their potential use of Ozone depleting F Gasses	Air pollution – contamination of the atmosphere leading to breakdown of the Ozone layer which causes global warming	Testing / inspection and substitution. F Gas register, leakage log.	I	A	120	-ve	Low
Invasive weeds	Japanese Knot weed	Impacts on biodiversity.	Contractors checks - competency training records. Knotweed management plan	I	N	24	-ve	Low
	Grounds on campuses	Invasive	Competent supervisors and Grounds staff					
	Electrical	Emissions	Fire alarm					High
	Explosion	Water contmination	Fire alarm testing					

Fire emergency	Chemicals	Waste materials / Hazardous waste	Evacuation procedure and testing	I	E	270	-ve	High
		Land contamination	Drills					
		Biodiversity impact	Fire wardens					
	Library 24 hour opening (Treforest) - additional risk of fire - increased number of students on site	Smoke, dust, fumes odours - statutory nuisance	Extinguishers					
			Smoking areas					
			Smoke detectors					
			Haz waste disposal procedures					
			Emergency contacts					
			Drain Plans					
			Security team on site					
		Maintenance team on call						
Awareness Raising	Tool box talks, meetings, Steering group, EFMT meetings. Training.	Positive - raising awareness of need to conserve the environment and reduce impact	Web page, the HUB EFMT meetings. Supervisors carry out tool box talks. Monitoring / checking. Advice and guidance. Environment team point of contact.	D	N	192	+ve	Low
Biodiversity	Grounds on each campus	Impacts on ecosystems of species that are located on or in vicinity of our campuses	Surveys	D	N	192	-ve	Low
	Developments / Building works on each campus	Reduction in species	Policy / procedure					
		Protected Species	Bat boxes					
			Bird Boxes					

			Awareness (woodland walk)						
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