

Western Sydney University Environmental Risk Register - 2014

Project Name: Environmental Management System
Facilitator: Roger Attwater
Identifier: Senior Manager, Environment and Risk Management

 Select Rating between 1 - 5 where: 1= Very Low, 5= Very high
 Overall risk level is a result of "Likelihood x Impact" (auto-calculated; no need to fill in)

School/ Unit: Capital Works and Facilities

A) RISK ASSESSMENT

Reference			Identification		Risk rating (Key 1)			Control effectiveness rating (Key 2)			Overall residual risk ratings	Mitigation		Control/ Monitor	
ID	Date Raised	Risk Category	Description of Risk (D)	Impact to Western Sydney University (E)	Likelihood	Impact	Overall Risk	Controls in place (F)	Control design	Implementation		Further Actions (J)	Mitigation Actions Tracking Strategy (K)	Action due date	Risk Owner
Brief Guide - lines:			Adverse effects or events that affect the achievement of the organisation's objectives/ potential opportunity that may add value to the organisation's operations	Possible impact/ consequence if the event occurs: in \$ or some other qualitative measures e.g. university image/ staff morale etc	rating 1-5	rating 1-5	auto-calculated	If there are any strategies or controls already in place for the corresponding risks	rating 1-3	rating 1-3		Options to manage/ mitigate risks identified if the existing controls are considered inadequate or ineffective e.g. to avoid/ transfer/ control the residual risks that are intolerable	How the risks and the corresponding mitigation actions can be monitored	Actions completion date	Who implements the actions
		Environmental	<u>Energy Conservation.</u> Cost and regulatory impacts of energy use for heating, cooling and lighting across all Western Sydney University activities	(1) Increasing costs of energy overheads, including financial impact of carbon price. (2) Emissions of CO2, and potentially ozone depleting substances and legionella (3) Reputational loss associated with student, staff and public perception of engagement with sustainability issues and related reporting needs and sector benchmarking	5	4	20	(1) Energy efficient design for buildings, HVAC and lighting, reflected in CW&F design guidelines; (2) Roll out of Building Management Systems (BMS); (3) Green star accreditation for major new buildings; (4) Energy smart metering, engagement with building users, and toolkits developed for key building uses	2	1	High	(1) Engagement with all key functional areas including IT (2) Continued roll out of BMS. Energy smart metering, and engagement with building occupants (3) Testing and implementation of alternate energy options eg cogeneration and targeted use of renewables (4) Greater engagement of teaching and research	Energy use and mitigation strategy as key Program of Environmental Management Plan	on-going	EMC
		Environmental	<u>Water Conservation.</u> Cost and regulatory impacts of water use across all Western Sydney University activities	(1) Increasing cost of water use (2) Triggering of regulatory requirements such as Water Savings Action Plans and limited available use of potable water for external uses at times of water restrictions (3) Reputational loss associated with student, staff and public perception of engagement with sustainability issues and related reporting needs and sector benchmarking	3	4	12	(1) Water efficient design incorporated in hydraulic guidelines for fittings, along with consideration in mechanical HVAC design (2) Use of recycled water and stormwater for non-potable external uses where possible.	2	1	Moderate	(1) Continued reduction of potable water use in external areas through water sensitive design and development of alternative non potable supplies	Water conservation and recycling strategy as key program of Environmental Management Plan	on-going	EMC
		Environmental	<u>Waste Management.</u> Cost, environmental, public health and aesthetic impacts of general waste disposal to landfill	(1) Cost associated with waste disposal to landfill, including impact of carbon tax. (2) Impacts of unsightly waste collection, associated pests, and illegal dumping in waste skips (3) Reputational loss associated with student, staff and public perception of engagement with sustainability issues and related reporting needs and sector benchmarking	4	4	16	(1) Separation of waste streams at source, enabling recycling of office paper, co-mingled recycling (2) Provision of waste recycling receptacles in offices and public areas (3) Green office program targeting awareness and behaviour (4) Roll out of waste compaction removing skip bins from campuses	1	1	Low	(1) Continued roll out of waste reduction strategies (2) Increasing development of strategies to recycle putrescible food waste and green waste	Waste reduction and recycling strategy as key program of Environmental Management Plan	on-going	EMC
		Environmental	<u>Hazardous materials.</u> Environmental and public health risks associated with hazardous materials found in historical building materials, chemicals and materials used for laboratory purposes, biological and clinical wastes.	(1) Need for careful capture and disposal by suitable means for particular hazardous waste materials such as asbestos from building materials, chemical / clinical / biological wastes (2) problem of identification of unknown waste materials and chemicals (3) clear processes to ensure students, staff and contractors are not exposed to hazardous materials (3) WHS procedures and reporting in relation to actions and responses	4	4	16	(1) Clearly established WHS procedures for the identification, removal and appropriate disposal for hazardous materials by contractors or laboratory managers (2) clear emergency response procedures should an incident occur (3) Management at source for disposal of clinical and biological waste by laboratory managers	1	1	Moderate	(1) Continued improvement in WHS and hazardous waste disposal procedures	Hazardous waste strategy as key program of Environmental Management Plan	on-going	EMC / WHS Unit / Safety & Security

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		Environmental	<u>Land and biodiversity management.</u> Environmental, biodiversity, productivity, public health and public amenity impacts associated with inappropriate land management of extensive areas of the campuses.	(1) Environmental risks to assets and safety including those associated with bush fire, weeds, pests and feral animals (2) Potential loss of biodiversity and ecosystem function in remnants of Cumberland Plain vegetation (3) Threat to experimental infrastructure in bushland and agricultural areas (4) Management of waste from general activities, research and contractors to ensure no contamination of land resources or downstream ecosystem values	4	4	16	(1) Action plans implemented for bush fire mitigation, feral animal management, and weed management in collaboration with key land management agencies (2) Agricultural lands managed in a manner consistent with broader environmental and public risks (3) Engagement of staff and students in landcare groups and associated awareness campaigns (4) Clear instructions to contractors as part of contractor inductions and site specific activities	2	1	Moderate	(1) Continued development and implementation of action plans, and strategies developed in consultation with key land management agencies	Land and biodiversity strategy as key program of Environmental Management Plan	on-going	EMC / Safety & Security

KEYS FOR RATING SCALE:

Key 1: RISK RATING SCALE (The risk level for the issues raised in (D) will be assessed without taking into account existing controls-e.g.. management strategies, checks & balances, policies & procedures etc.).

Overall Rating (L) ^ (L)	Likelihood (L)	Impact / Consequence (L)	
Critical > 20	(5) Almost certain	(5) Catastrophic	<ul style="list-style-type: none"> Potential financial impact of \$4m (\$50,000)(a) or more Detrimental impact on operations or major projects Sustained loss in reputation , Life threatening Sustained impact on services or quality
High ≥ 13 & ≤ 19	(4) Likely	(4) Major	<ul style="list-style-type: none"> Potential financial impact of \$20m (\$20,000) or more Major impact on operations or major projects Serious loss in reputation , Extensive injuries
Moderate ≥ 5 & ≤ 12	(3) Possible	(3) Moderate	<ul style="list-style-type: none"> Potential financial impact of \$1m (\$10,000) or more Moderate impact on operations or major projects Short-term loss in reputation , Minor injuries
Low ≥ 3 & ≤ 4	(2) Unlikely	(2) Minor	<ul style="list-style-type: none"> Potential financial impact of less than \$1m (\$5,000) Minor impact on operations or major projects No loss in reputation , Potential for injury
Very Low ≤ 2	(1) Rare	(1) Insignificant	<ul style="list-style-type: none"> Impact can be absorbed by daily business running costs

Key 2: CONTROL EFFECTIVENESS SCALE (to assess the relevance and operating effectiveness of remedial actions/treatment strategies)

Well Designed Control ?		Effectively Implemented ?	
3	Needs improvement	3	Deficient (b)
2	Adequate	2	Marginal
1	Strong	1	Effective

Risk Category (drop down list)	
Academic (Course quality)	Legal
Academic (Program delivery)	Legislation
Academic (Research)	Organisational
Behaviour	Political
Environmental	Reputation
Financial	Technology
Infrastructure	Others
International	Ref. to Risk Category column (C)

<notes> (a) Figure in blanket representing the financial impact to individual business unit/operation/project
(b) Controls are excessive, impose more damages than benefits and/or reduce efficiency in operations or likelihood of achieving objectives