

#### **Green Labs Assessment**

Green Labs Rep:	Date of assessment:
Lab name:	Green Labs Assessor:
School / Section:	Lab name of GL Assessor:
No of Staff / Students in Lab:	School / Section of GL Assessor:

The <u>Green Lab Assessment Information Sheet</u> provides more information on how to prepare for the assessment and how to complete the assessment. Please read this before your assessment. This is available on the website at <u>www.uq.edu.au/sustainability/green-labs-program</u> or contact the Green Labs Assistant.

The following assessment has been designed based on the work procedures in the Environmental Management System (EMS) and the Green Labs fact sheets. Auditors should look for evidence of the questions. If the question does not apply to the lab then answer N/A.

Once completed, forward copy of your Green Labs Assessment to greenlabs@pf.uq.edu.au.







# The University of Queensland **Green Labs Program**



Ask Energy team before attending assessment	Comment
Does the centralised A/C run 24/7 during semester?	
Does the centralised A/C humidity control run 24/7 during semester?	
Does the centralised A/C run 24/7 out of semester times?	
Does the centralised A/C humidity control run 24/7 out of semester?	

1.0	Interview with new GL Rep	Yes Always	Mostly	Some- times	Rarely	No Never	N/A	Comments
1.1	Training							
1.1.1	Is environmental training provided in new staff inductions?							
1.1.2	Is there a record of who has undertaken environmental training? (sight record for yes)							
1.1.3	Are annual update sessions on Environmental Management run? For Yes response, these sessions are for all lab users as a reminded of their responsibilities and the procedures particularly in relation to waste disposal. It could be a 15 mins session perhaps held during a staff meeting rather than formal training.							
1.1.4	Is there a record of who attends update sessions? (sight record for yes)							
1.2	Energy							
1.2.1	Are appliances only switched on just before they are needed rather than leaving them running constantly? (e.g. ovens, chillers, autoclaves) For Yes, response must know the warm up times – could be on a label on the appliance							
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1.0	Interview with new GL Rep	Yes Always	Mostly	Some- times	Rarely	No Never	N/A	Comments
1.2.2	Have power management stickers been placed on most lab equipment e.g. 'Switch off and Save', 'Appliance warm up time'							
1.2.3	Have timers been installed on all equipment that is often left on but could be turned off at night and on the weekends? e.g. heating blocks, centrifuges, PCR machines, and printers.							
1.2.4	Are lights always turned off in vacant or occasionally used rooms? e.g. storage rooms, cold rooms, microscopy rooms.							
1.2.5	Are appliances run only when they have a full load? (e.g. autoclaves, dishwashers, glasswashers)							
1.2.6	If the centralised A/C is run 24/7 (either during or out of semester times) - Is this necessary?							
1.2.7	If the centralised A/C humidity control run 24/7(either during or out of semester times) - Is this required?							
1.3	Fridges/Freezers							
1.3.1	Are fridges and freezers defrosted annually and condenser coils and filters cleaned biannually?							
1.3.2	Do ULT freezers have up-to-date inventories, detailing where samples are located within each freezer?							
1.3.3	Is Ultra-low freezer space shared between other researchers/groups to avoid purchasing a new ULT freezer?							
1.3.4	Are Ultra Low Freezer chilled up to -70°C or -75°C?							
1.3.5	Are incubators used as refrigerators?							







1.4	Water Efficiency			
1.4.1	Is all water cooled equipment on a recycle system?			
1.4.3	Is water of appropriate quality used for each task? For Yes, Tap water is used for bulk rinsing of dirty glassware and use progressively purer water with each step, as needed. Understand the chemical limits of contamination for your work and know your source <u>water purity</u> . Consider soaking rather than continuous flushing.			
1.4.4	Is labware washed efficiently? For Yes, response includes, washed in the sink using a plug or under a tap with flowrates minimised. Dishwashers operated on full load.			
1.4.5	Are timers installed or used on critical or continuous water uses?			
1.4.6	Do you look for and report leaks (e.g. in icemaker and autoclave drains). Leaks are reported to P&F Assist			
1.5	Chemical Management			
<b>1.5</b> 1.5.1 1.5.2	Chemical Management         Is a chemical tracking system used for the labs or will be installed?         N/A if system has been considered but too difficult to implement at this stage.         Has the lab been spring cleaned in the last year?			
1.5.1         1.5.2         1.5.3	Chemical Management         Is a chemical tracking system used for the labs or will be installed?         N/A if system has been considered but too difficult to implement at this stage.         Has the lab been spring cleaned in the last year?         Are excess and waste chemicals disposed of after research is completed or students/staff leave the area?         For Yes response no chemicals on shelves that were used for research that has been completed or by staff and students who are no longer in the group.			
1.5         1.5.1         1.5.2         1.5.3         1.5.4	Chemical ManagementIs a chemical tracking system used for the labs or will be installed?N/A if system has been considered but too difficult to implement at this stage.Has the lab been spring cleaned in the last year?Are excess and waste chemicals disposed of after research is completed or students/staff leave the area?For Yes response no chemicals on shelves that were used for research that has been completed or by staff and students who are no longer in the group.Are there sufficient labels on work spaces to allow Lab Personnel to identify the group or individual responsible for experiments/equipment/samples/chemicals when unattended?			
1.5.1         1.5.2         1.5.3         1.5.4         1.5.5	Chemical ManagementIs a chemical tracking system used for the labs or will be installed?N/A if system has been considered but too difficult to implement at this stage.Has the lab been spring cleaned in the last year?Are excess and waste chemicals disposed of after research is completed or students/staff leave the area?For Yes response no chemicals on shelves that were used for research that has been completed or by staff and students who are no longer in the group.Are there sufficient labels on work spaces to allow Lab Personnel to identify the group or individual responsible for experiments/equipment/samples/chemicals when unattended?Do you seek to minimise chemical use where feasible?			









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1.6	Waste Reduction			
1.6.1	Where possible and safe to do so, is washable or reusable lab ware used in place of disposable items?			
1.6.2	Are empty printer cartridges recycled?			
1.6.3	Are mobile phones recycled?			
1.6.4	Is obsolete computer equipment recycled?			
	NON OGTR OR QUARANTINE CERTIFIED LAB			
1.6.5	Do you return empty original chemical containers to the Chemical Store for reuse? (Plastic and glass bottles 2.5 and 4 litre). Do not wash bottles or deface labels.			
1.6.6	Are recycling bins located outside your lab? Cleaners will only collect waste from bins that are located outside the laboratory.			
1.6.7	Has the Laboratory Recycling Poster been placed next to the recycling bins?			
1.6.8	Is paper and cardboard recycled?			
1.6.9	Are green, brown and clear glass bottles that cannot be reused by Chemical Store, recycled? (cannot be contaminated with pharmaceutical products, should be rinsed and labels defaced).			
1.6.10	Are recyclable plastic containers recycled?			
1.6.11	Is polystyrene packaging recycled?			
	OGTR OR QUARANTINE CERTIFIED LAB			
1.6.12	Are recycling bins located outside your lab? Cleaners will only collect waste from bins that are located outside the laboratory.			
1.6.13	Is clean uncontaminated outer packaging material which have not entered the lab recycled?			









1.0	Interview with new GL Rep	Yes Always	Mostly	Some- times	Rarely	No Never	N/A	Comments
1.7	Procurement							
1.7.1	Is equipment shared between research groups or labs? For Yes response, either it is currently being undertaken or perhaps procurement guidelines recommend checking other labs first.							
1.7.2	Is equipment chosen to suit the most frequent use size requirements? For yes response, perhaps procurement guidelines or form has tick box indicating the equipment is sized for its most frequent use rather than occasional or just- in-case larger loads.							
1.7.3	Are environmental benefits considered when purchasing equipment? For yes response, perhaps procurement guidelines or form has tick box indicating environmental considerations such as energy star rating/ off switches / recirculated cooling water.							
1.7.4	Is reusable equipment purchased where possible? E.g. glassware.							
1.8	Travel							
1.8.1	Do lab staff regularly car pool, ride bikes, walk or take public transport?							
1.8.2	Do lab staff use teleconferencing or video conferencing instead of travelling to a meeting?							
1.8.3	Do lab staff use the intercampus bus where feasible?							







2.0	Interview with Lab Users	Yes Always	Mostly	Some- times	Rarely	No Never	N/A	Comments
2.1	Duty of Care	·						
2.1.1	Did you know that UQ has an Environmental Policy? Do you know where to find it?							
2.1.2	Have you heard of the Environmental Protection Act 1994?							
2.1.3	Do you know what your General Environmental Duty is? For Yes, response must be aware of personal liabilities to minimise harm to the environment.							
2.1.4	What would you do if you became aware of an incident that might cause environmental harm? (eg. chemical spill down sink / stormwater drain) For Yes, response must be to try to contain incident (if safe to do so) and then contact supervisor or 53333.							
2.1.5	Do you know where to find the EMS Manual and procedures?							
2.2	Chemical Management							
2.2.1	Do you know which liquid waste chemicals can go down the sink? How do you find out if a liquid waste chemical can go down the sink? For Yes, response of either told by supervisor or look up QUU trade waste sewer acceptance guidelines through the procedures							
2.2.2	Do you know how to dispose of a liquid chemical that cannot go down the sink? How do you do it? For Yes, response of one waste bottle for each separate process, correctly barcode labelled and returned to Chemical Store							
2.2.3	Do you know how to dispose of solid chemical wastes? What is the process for disposal of solid chemical waste? For Yes, response of seal in appropriate container and label before return to Chemical Store							









2.0	Interview with Lab Users	Yes Always	Mostly	Some- times	Rarely	No Never	N/A	Comments
2.2	Chemical Management (Cont.)							
2.2.4	How is chemical waste collection requested? For Yes response of using Chemical Store online system to order waste disposal bottle and put finished waste bottle in appropriate collection area.							
2.2.5	Are chemicals only ordered on an as needs basis? For Yes response, for example, order frequently of small amounts rather than occasionally and large amounts.							
2.2.6	Are chemicals shared with other researchers/groups within the lab?							
2.2.7	Are chemicals shared with other labs when possible? For example, when only a little of the chemical is needed or the chemical is only used once but a whole bottle has to be ordered. If a neighbouring lab can use the chemical this will reduce chemical waste (and save money and space).							
2.2.8	Are Green Chemistry alternatives investigated when setting up experiments?							
2.2.9	Is the minimal number of experiments or micro-scale experiments used where possible?							
2.2.10	When rinsing bottles, is the minimum amount of water used to dilute chemical in bottles then the rest of the water put down the sink? Generally when an empty chemical bottle has been filled with clean water several times, (and disposed of as chemical waste), water used to rinse the bottle after that will only contain traces of chemical which are below the trade waste recommendation and so can be disposed of down the sink.(see Chemical Management Factsheet for further clarification)							
2.2.11	Are empty chemical bottles returned to the Chemical Store for use as waste bottles?							
2.2.11	Do you know where the spill equipment is located?							









2.0	Interview with Lab Users	Yes Always	Mostly	Some- times	Rarely	No Never	N/A	Comments
2.3	Animal Waste							
2.3.1	<ul> <li>Is animal waste disposed of correctly?</li> <li>* For Yes response: Animal waste shall be placed in a blue receptacle/bin with no splits or cracks and a fixed lid and the receptacle/bins will be marked as Animal waste</li> </ul>							
2.3.2	<ul> <li>Is animal waste stored correctly?</li> <li>* For Yes response: Animal carcasses and parts thereof, must be kept refrigerated (eg dedicated area within a cold room) as required until the time of removal from site;</li> <li>* Animal litter, foodstuffs and faeces must be stored in a cool environment;</li> <li>* The waste shall be stored:         <ul> <li>* in a weather protected, well-ventilated area;</li> <li>* in a secured area and not readily accessible by the general public; and</li> <li>* in such a manner as to present no threat to health, safety and the environment.</li> </ul> </li> <li>* If possible and safe, stored until the School or Centre has a bin full</li> </ul>							
2.3.3	<ul> <li>Do you know what to do if there is a spill?</li> <li>For Yes response: Every generator, transporter or handler of Animal wastes shall hold equipment, and have staff who are trained to carry out clean up of spills of this waste. This will include all measures for containing, removing and disinfecting a spill area.</li> <li>Any material generated by responding to a spill should be handled as animal waste unless it is excluded, by its nature, by any part of this procedure.</li> <li>Or – know who to contact if there is a spill – a supervisor should know so that would be a sufficient response.</li> </ul>							
2.4	Clinical Waste							
2.4.1	What is clinical waste? What is included in clinical waste? * For Yes response must include reference to perceived clinical waste							
2.4.2	How is clinical waste disposed of? * For Yes response must include placing in approved yellow liners and bins marked with ADG Infectious waste symbol							
2.4.3	How sharps are correctly disposed of? * For Yes response must include reference to sharps containers.							









2.0	Interview with Lab Users	Yes Always	Mostly	Some- times	Rarely	No Never	N/A	Comments
2.6.4	How are gloves, masks and pipettes correctly disposed of? * For Yes, reference to perceived clinical waste							
2.4.5	Do you know what to do if there is a spill?							
2.5	Cytotoxic Waste							
2.5.1	What is cytotoxic waste? <ul> <li>For Yes response must refer to waste which is or may be contaminated with cytotoxic drugs</li> </ul>							
2.5.2	<ul> <li>Is cytotoxic waste is correctly disposed of?</li> <li>* For Yes response must refer to placing in approved purple receptacles marked with 'Cytotoxic waste – Incinerate at 1100 °C'.</li> </ul>							
2.5.3	Do you know what to do if there is a spill?							
2.6	Radioactive waste							
2.6.4	<ul> <li>When is radioactive material disposed of?</li> <li>Refer to table 1 of EMS procedure for commonly held material. P&amp;F do NOT accept radioactive waste.</li> </ul>							
2.6.5	What is the process to dispose of containers or packages that formerly contained radioactive materials?							
	<ul> <li>For Yes response must include removal of all radiation labels be removed or effectively destroyed, then contact the University Radiation Protection Advisor.</li> </ul>							







3.0	Walk Through Survey	Yes Always	Mostly	Some- times	Rarely	No Never	N/A	Comments
3.1	Recycling							
3.1.1	Is all paper recycled?							
3.1.2	Is all cardboard and packaging material recycled?							
3.1.3	Is all polystyrene recycled?							
3.2	Chemical Management							
3.2.1	Are chemical bottles labelled correctly?							
3.2.2	Are waste bottles labelled correctly? Eg Chem Store barcode label.							
3.2.3	Is appropriate spill equipment available?							
3.3	Animal Waste							
3.3.1	Is animal waste disposed of correctly?							
3.3.2	Is animal waste stored correctly?							
3.3.3	Is there a notice up listing who to contact if there is a spill?							
3.4	Clinical Waste							
3.4.1	Are spill kits available?							
3.4.2	Are bins filled appropriately (i.e. they are not over full)?							
3.4.3	Is all perceived clinical waste in Clinical Waste bins?							
3.5	Cytotoxic Waste					-		
3.5.1	Are spill kits available?							
3.5.2	Are bins filled appropriately (i.e. they are not over full)?							
3.6	Fume cupboards							
3.6.1	Are chemicals stored in any fume cupboards when not in use?							
3.6.2	Are any sashes held open with equipment or other obstruction?							
3.6.3	Are any sashes broken?							
3.6.4	Are any fume cupboards obsolete?							









4.0	After hours Survey	Yes Always	Mostly	Some- times	Rarely	No Never	N/A	Comments
4.1	Water							
4.1.1	Is all water cooled equipment switched off?							

4.2	Energy Survey	Percentage left on (excluding those switched off or on power save/sensor)	Comments
4.2.1	Are lights switched off in unmanned areas?		
4.2.2	Are hard drives (computers) switched off or on power save?		
4.2.3	Are monitors switched off or on power save?		
4.2.4	Are printers & photocopiers switched off or on power save?		
4.2.5	Are appliances switched off and not immediately in use (including ovens, sterilisers, autoclaves)? If they have been left on ready for the morning what is the warm up period (provide answer in "Comments" column?		

5	<ul> <li>Fume Cupboard Sash Height</li> <li>* Ideally sample all fume cupboards (especially if 10 or fewer). If more than 10 take a representative random sample of the fume cupboards.</li> </ul>	No of fume cupboards sampled	Avg. height of fume cupboards sash	Sash Closed Height (cm)	Comments
5.1	Average height of sashes (use <u>Fume Cupboard Assessment</u> <u>Sheet</u> to record all sash heights)				



