

# The University of Stirling Students' Union's Significant Negative Environmental Impacts



Environmental review completed: November 2019

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This review identifies the significant negative environmental impacts arising from activities delivered through the Students' Union. The review highlights the top 5 most significant impacts and a) identifies current baselines for impacts / sets out to create baselines where these are not in place; and b) sets out actions to be taken to reduce the environmental impacts for the identified activities.

If you would like any further information regarding our environmental impacts then please contact Matt Woodthorpe at [matt.woodthorpe@stir.ac.uk](mailto:matt.woodthorpe@stir.ac.uk).

## Top 5 significant negative environmental impacts:

| Ref | Aspect             | Description  | Impact   | Quantification of Impact   | Actions  | Measure of Action Impacts  |
|-----|--------------------|--|--|--|--|--|
| 1   | Use of Electricity | Electricity used throughout the Union (Offices and Robbins) for lighting, equipment and heating/cooling. | Indirect use of fossil fuels creating CO2 and pollutants, potential for increased global warming, reduction in air quality               | 245,704 kWh (2011/12 - 2018/19 average)<br>41.7 t/CO2e   | Monitor energy data; reduce energy demand through purchasing energy efficient equipment; monitor light bulbs in the union; replace inefficient equipment; training on best practice. | 24% reduction in Union electricity use between 2011/2012 and 2018/19.  |
| 2   | Use of Fossil Fuel | Indirect use of fossil fuel for heating; direct use of fossil fuel for business trips.                   | Indirect and direct use of fossil fuels creating CO2 and pollutants, potential for increased global warming and reduction in air quality | Staff travel carbon footprint: 4.31 t/CO2e (2017/18 - based on semester 1 reporting)<br><br>47% of business car journeys involve car sharing | Establish carbon footprint for the Students' Union including Scope 1, 2 and 3 emissions.   | Extensive organisation carbon footprint measured - 138.58 tonnes CO2e 2018/19.   |
| 3   | Kitchen Waste      | Waste arising from the catering areas of the Union   | If not recycled properly, this waste could end up in landfill sites or for incineration (air pollutants production)                      | 3% hot drink sales using a re-useable coffee cup (2017/18)<br><br>Unknown: Food waste database and baseline to be created 2019/20            | Monitoring recycling system, collaborating with staff (incl. raising awareness), promote re-useable cup schemes for hot drinks.  | Disposable coffee cup charge has increased re-useable cup use from 3% to 30% of sales (2017/18 vs 2018/19); across campus, the charge has removed 1 tonne of waste |
| 4   | Use of Materials   | Procurement of equipment from non renewable sources.   | Depletion of natural resources   | Printing: 92,340 pages (2017/18 baseline)  | Follow direction on sustainable procurement guide and Institution guidelines   | Union has reduced internal printing by 40% (2017/18 vs 2018/19)  |
| 5   | Use of Water       | Use of water throughout the Union for toilet and catering.   | CO2 emissions due to treatment and supply; depletion of natural resources  | 1651 m3 (2011/12 - 2018/19 average)  | Monitor water use; making sure efficient water fixtures are used, replacing inefficient equipment; raising awareness; immediate reporting of leaks to Estate Management for repair.  | 47.7% reduction in water use in Union premises between 2012/2013 and 2018/2019.  |

## Additional unranked significant negative environmental impacts:

| Ref | Aspect            | Description   | Negative Impact   | Actions   |
|-----|-------------------|---|---|---|
| 6   | Use of Land       | Environmental considerations related to the use of the land around the union, roads car park and gardens. | Refers to the protection, conservation and enhancement of the natural and cultural heritage on campus.                    | Keep a strong collaboration with the relevant University Staff Members to monitor the Union's activities related to land use.                 |
| 7   | Waste oil         | Collection of waste cooking oil from Studio from the University to then convert it to biodiesel.          | Spillages could potentially impact environment.   | Monitor of documentation. Keep good collaboration with relevant University Staff Members.   |
| 8   | Electrical Waste  | Production of WEEE waste and assure that is properly disposed of.   | Potentially toxic in the environment and spillages could impact on flora and fauna.                                       | Recycle through Institution.  |
| 9   | Chemical Waste    | Use of cleaning products.   | Potentially toxic in the environment; bleach type or enzymatic drain cleaners impacting on efficiency of sewerage system. | Monitoring and documentation; working in collaboration with the Cleaning Department.  |
| 10  | Domestic Waste    | Waste arising from the Union departments.   | If not recycled properly, this waste could end up in landfill sites or for incineration (air pollutants production).      | Monitor waste production; encouraging recycling by raising awareness within staff.  |
| 11  | Contractors Waste | Waste produced by shops or by delivery of products.   | CO2 production.   | Monitoring and control (if possible) of contractor activities and waste disposal to make sure they follow University Sustainability Policies. |

## Additional unranked significant negative environmental impacts - continued:

| Ref | Aspect  | Description   | Negative Impact   | Actions  |
|-----|---|---|---|--|
| 12  | <b>Waste Water</b>                                    | Use of toilets and catering throughout the Union.                       | Use of natural resources.   | Monitoring of plumbing and facets and prompt reporting of leaks for maintenance.   |
| 13  | <b>Emissions from LEV (Local Exhaust Ventilation)</b> | Use of LEV from catering extract.                                       | Release of toxic gasses into the atmosphere.  | University Sustainability Policy   |
| 14  | <b>Rental Minibus</b>                                 | Use of Minibus.   | Release of CO2 through the combustion of fossil fuels.  | Researching rental companies practices, choosing the most efficient options, if possible.  |
| 15  | <b>Visitors Travel</b>                                | Cars and buses on SU area by visitors.                                  | Release of CO2 through the combustion of fossil fuels.  | If possible, the Union staff should try to raise awareness on eco-friendly ways to reach the Union. Aside from respecting the University sustainability policy; car parking policy; policy on active travel. |
| 16  | <b>Surface water run off</b>                          | Water run-off from buildings, car parks and roads.                      | Could contain oils from vehicles.   | Use of drain oil traps - see drainage plan.  |
| 17  | <b>Leakages and spillages</b>                         | Leaks and spills to drain; most likely to include oil spills from cars. | External oil spills captured by drain traps; internal spills to drain sewerage but would be diluted within sewerage system. | Use of drain oil traps - see drainage plan.  |
| 18  | <b>Lighting</b>                                       | Light pollution from road and building lighting.                        | Limited impact affecting night sky observations, waste of electrical resource.  | Working in collaboration with the university to minimise light pollution and save energy by using efficient lighting.  |