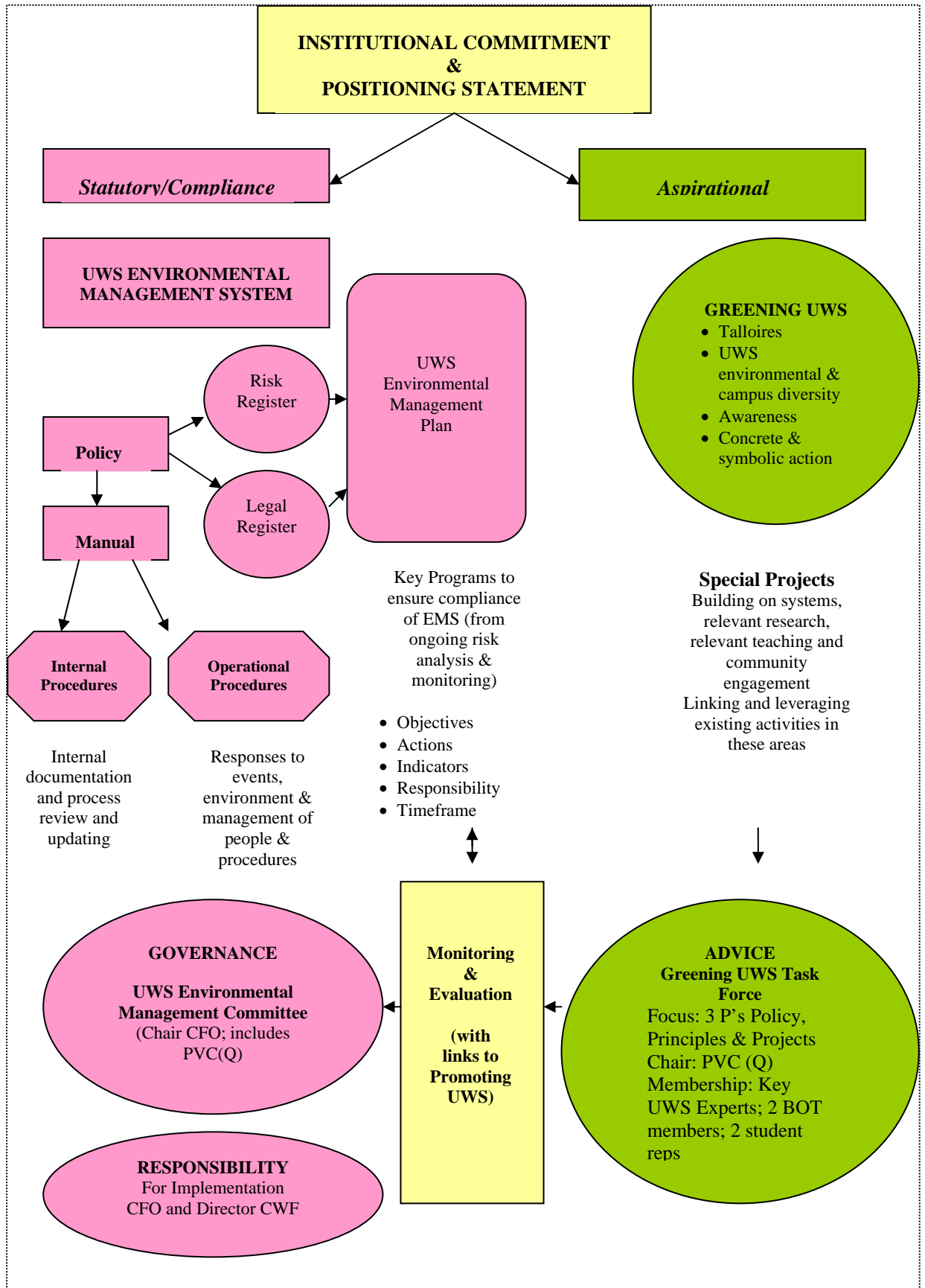


# UWS Sustainability Strategy



## Proposed UWS Green Campus Framework

The framework below seeks to give an overall picture of the key components that need to be addressed if a comprehensive approach to developing a Green Campus is to be pursued. The framework accommodates all of the projects currently underway at UWS as well as the areas listed in my earlier proposal for action on the Werrington South Campus. It is derived from the following book which documents exactly what Tufts University did to deal effectively with each of the action areas and specific elements listed:

**Creighton, S.H. (1998): *Greening the Ivory Tower*, MIT Press, Cambridge Massachusetts**

This book tracks the comprehensive and successful Greening Strategy adopted by Tufts university in the 1990s – for each of the following areas and components there is detailed guidance on what worked best

### Buildings & Grounds

Solid waste Energy management Lighting Indoor air quality	Water Maintenance Hazardous substances & waste Pest management	Grounds Building Construction & renovation Special considerations
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### Purchasing

Products & Services Selecting environmentally friendly products Relying on vendors for action	Solid waste reduction Buying energy efficiency Printing Services/Copiers Vehicles	Hazardous materials in labs & studios Non-lab hazardous materials Purchasing as a source of information
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### Dining Services

Environmental attention Reduce solid waste Food waste	Kitchen equipment Conserving water	Selecting low impact foods
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### Academic Departments, Admin Offices & Classrooms

Reducing paper Office equipment & supplies	Conferences & Special Events Meetings	Transportation Curriculum
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### Labs, Research Facilities & Studios

Meet legal requirements Course & Research design	Lab Facilities, procedures and equipment Chemical purchasing & storage	Waste disposal Art and Photography studios
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### Student Activities

Students as advocates	Students as participants	Reducing impacts in residences
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## **The Green Demonstration Campus at UWS Penrith**

### **Water**

- waterless urinals
- dual flush toilets
- rain water to flush toilets via tanks and a photovoltaic pump
- sensor taps/push taps
- low water use dishwasher
- irrigation not from mains but recycled or rain water – tanks installed
- mulching
- drought resistant plants
- removal of bottled water and replacement with a tap water filter
- composting toilets planned

### **Power**

- Solar – including a solar water feature
- Photovoltaics
- Windpower and Natural gas power demonstration
- lights audit/LEDs
- Sensor lights
- Zip heaters on a timer
- Students doing a campaign in residences and building BB
- Measurement of power consumption in Bldg BB
- IT ‘turn it off’ campaign

### **Students work**

- display of climate friendly engineering student designs – in Kingswood and then in 2 Council areas
- Schools visits – including use of students as guides plus installation of low cost options back at school with a UWS student assisting a Community Service elective

### **Communication**

- BB power use awareness campaign
- forum for the Provost on cheap green ideas
- Residence campaign to reduce power and water

### **Travel**

- Hybrids – full cost benefits to be researched with the Engineers
- Pooled cars process- staff and students are underway
- Bikes – need bike racks; do have showers on Kingswood
- Meetings by teleconference

## **Waste & Recycling**

- Less paper cups – use of crockery plates and cups for coffee in outlets
- Default on printers to double sided
- Ramp up of use of recycled paper
- Installation of organic waste composting system (blackwater, garden, putrescible waste) into the Kingswood residences – Biolytic waste water cleaning on Werrington South Campus
- Comingling bins – for students and in each staff kitchen
- All ink cartridges, fluorescent tubes, paper are being recycled
- Incentives if admin units reduce consumption

## **Green Buildings & Grounds**

- All to be at least at 4 star standards under the Green Building code – passive design
- Longer term: investigate with our Engineers use of low cost geothermal aircon & heating
- Student run, low water vegetable gardens
- Zero-scaping initiative

## **Soaking up carbon**

- The Hawkesbury tree experiment
- Green landscape: UWS plantings and carbon offsets

## **Targets**

- 20% reduction in energy and water consumption in 2008
- 5% pa reduction in waste going to landfill
- 5% pa increase in recycling

