



## GREEN TOURISM AUDIT REPORT

Prepared By: Stuart Park

### Stirling Castle

Site Environmental Coordinator: Craig Lennon

Date of Visit: 24/10/2013

Site Address:

Castle Wynd

Stirling

Stirlingshire

FK8 1EJ

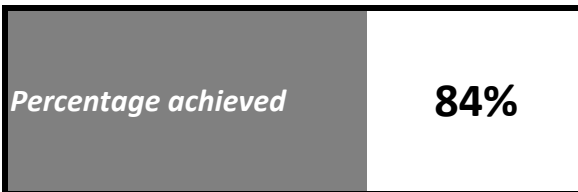
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## Stirling Castle

A qualified assessor for the Green Tourism Business Scheme undertook an accreditation grading visit at the above named site. This is a summary of the activities being undertaken on site in relation to the Green Tourism criteria. This audit report is a statement on the performance of the business as a sustainable tourism operation



Gold >80%  
Silver 65-79%  
Bronze 40-64%  
Going Green <40%



### What's Green about:

### Stirling Castle

Stirling Castle does very well maintaining yet also strengthening the GOLD level of award since the last visit. Although the criteria have not changed in the last two years, the GTBS scoring has become more rigorous owing to advancements in technology, increasing awareness and the continuous improvement ethos of the scheme. Therefore, the retention of this grading level should be commended. There has been some investment in energy saving measures such as new high efficient boilers to reduce gas consumption as well as some insulation and LEDs in area. This is complemented with push/sensor taps, modern appliances and excellent utility monitoring to help realise any savings. The education/activity room is very good with lots of excellent green information and some hands on activities for children (and adults). The site has one of the larger shop areas as well as a cafe which has many Scottish items.

### Summary of general recommendations and observations

This report should be seen as part of Stirling Castle's on-going environmental management. This report is based on a site audit that identified a number of measures that can be developed to reduce the site's environmental impact, reduce costs and enhance the guest experience. An initial step will be to update the existing action plan with this report's recommendations and to aim to retain the GOLD award for next time. Ideally there could be more investment in LED lighting to replace the existing high wattage halogen spotlights. The cafe and shop could increase the amount of very local produce giving a better flavour of the area - this could be supported with signage of origin, ethical purchasing etc. The site has lots of ideas and a robust action plan which should see more green measures being introduced or improved in the coming months and years. Further recommendations have been made throughout the audit report, which should be read in conjunction with the criteria document. Additional supporting information can be found in the members area on the GTBS website.

### Conditions for use of the Green Tourism Brand

The Member may use the appropriate Green Tourism logo at any publicly accessible location including signs, promotional and marketing materials, letterhead stationery and customer information. The logo should also appear on the Member's website, linked to the home page of [www.green-business.co.uk](http://www.green-business.co.uk), to enable consumers to understand its significance. A green/environmental page can also be included on the website explaining the actions taken toward gaining an award. The award relates ONLY to the named business and its management. The award must not be used in promotions involving any other named business which has not met at least the same overall grading. Please note that the percentage achieved must not be promoted, only the award level itself.

## FURTHER RECOMMENDATIONS & ACTIONS

Reference	Measure	Comment
2.03	Staff environmental awareness	Green induction, noticeboard, newsletter, Could have green suggestion box for staff to keep ideas fresh.
2.04	Establish a green team	Site has green team. Last meeting April. Suggest meeting again. Green Champions; should keep minutes in the site green management file.
2.08	Monitoring: Energy	Regular readings (also AMR) and analysis. Suggest promoting more to visitors onsite. (see Members' Area on GTBS website for more info)
2.10	Monitoring: Waste & Recycling	Could do more on this. Waste prevention and re-use plan in place for HS. Mitie contract commenced August 2013 - too soon to obtain useful data (see Members' Area on GTBS website for more info)
3.05	Green information for customers	Green folder and exhibition room has excellent info. Due to size of this site some of this could be added as screens on digital display.
3.10	Community work on Local Environment	Have done earth day. Consider more local green projects e.g. organised local litter picks.
4.05	Use of Light Emitting Diode (LED) lighting	Great opportunity for replacing halogen spots with LEDs. Some so far.
4.06	Internal lighting controls & sensors	PIR for toilets and some office. Look at other areas as well.
5.05	Low flush toilets	6 litres on sensor. Could trial a bottle for displacement. Look for dual flush for any planned refurb.
5.13	Phosphate-free soaps and detergents	Selden products mainly. Suggest looking at 100% phosphate free cleaners. See Green Tourism website for details.
6.07	Local Meat & Dairy	Benugo uses Campbell's. Could tell food story more. Could still expand information on local places to eat and shop. This could encourage visitors to spend more time in the area.
6.08	Sustainably Sourced Fish	Check all are sustainable. See <a href="http://www.fishonline.org">www.fishonline.org</a>
6.17	Local Craft Products	Most products sold are Scottish - should keep trying to improve range of local products. Currently e.g. Burns Crystal, soap
7.09	Printer & Toner Cartridges (purchase & recycle)	Cartridge benefits charity. Could look at professional refills to help 'close the loop'.
7.14-7.18	Reduce, reuse, recycle	Good system for recycling with some reuse. Some visitor recycling bins in education room and other areas. Could be linked with monitoring - see 2.10

7.15	Cardboard Reuse or recycle	As above. Try to minimise packaging from suppliers.
7.19	Hazardous waste disposal	Battery box at entrance but not visible
8.06	Information on Walking and Cycling	Some good local resources. Consider personalising more starting from the Castle.
8.13	Business Vehicles are Eco-friendly	Consider a car charging point for electric vehicles. Electric buggy
9.09	Wildlife Refuges	Scope for some specific refuges around site with interpretation.

**Business Site Name:** Stirling Castle  
**Green Co-ordinator:** Eleanor Muir  
**Membership Code:** V0417  
**Date of Visit:** 24/10/2013  
**Assessor:** Stuart Park

**Key to symbols**

✓	Scoring measure (0-5) - included in the grading score
☑	Measure in place to some extent, but a sufficient number of relevant measures have already been scored to achieve award.
⊙	Recommended measure to focus on in future

No.	Measure	✓	Score	Action / Comments
<b>Compulsory</b>				
1.01	<b>Commitment to Sustainability</b>	✓	5	Fully committed. Craig, Nicola and Dougald also met on day of assessment.
1.02	<b>Minimum Standards and Risk management</b>	✓	5	
	No pollution risk from oil tanks and car parks			Spill kits for car park
	Suitable waste containment and disposal (including sanitary waste)			PHS
	Proper chemical storage			
	Good general maintenance			Maintenance checklist
	Litter and visual impression			
1.03	<b>Annual Performance Information</b>	✓	5	Received
1.04	<b>Green policy</b>	✓	5	Good policy on display and on website
	<b>Total</b>	<b>4</b>	<b>20</b>	<b>Compulsory actions completed</b>

Management				
2.01	Green Management File	✓	5	Excellent information prepared and presented. Keep expanding with relevant information as you progress in the scheme.
2.02	Establish a green action plan	✓	5	Updated action plan from meeting minutes. Seems to work well. HS as a group also have lots of objectives. Could add the main recommendation from this report to action plan.
2.03	Staff environmental awareness	✓	4	Green induction, noticeboard, newsletter, Could have green suggestion box for staff to keep ideas fresh.
2.04	Establish a green team	☑		Site has green team. Last meeting April. Suggest meeting again. Green Champions; should keep minutes in the site green management file.
2.05	Attendance at Green Training Event	✓	5	Attendance at April event in Blackness.. Change works training.
2.06	Green Business Network or Initiative			EAE links
2.07	Specialist Environmental Advice	✓	4	Zero waste Scotland, SEPA
2.08	Monitoring: Energy	✓	4	Regular readings (also AMR) and analysis. Suggest promoting more to visitors onsite. (see Members' Area on GTBS website for more info)
2.09	Monitoring: Water	☑		Weekly. Have identified leaks
2.10	Monitoring: Waste & Recycling	☑		Could do more on this. Waste prevention and re-use plan in place for HS. Mitie contract commenced August 2013 - too soon to obtain useful data (see Members' Area on GTBS website for more info)
2.11	Monitoring: Travel and transport			Mileage log for pool car (see Members' Area on GTBS website for more info)
2.12	Monitoring Flora and/or Fauna	✓	4	Bumblebee exhibition and survey. Bats
2.13	Green Marketing			
2.14	Green Events Package			
2.15	Joint marketing with other GTBS members			
2.16	Visitor Feedback	✓	4	Visitor feedback collected at all sites; limited responses, various visitor surveys carried out over the years. Environmental questions have been included in the past. Consider more proactive approach to feedback.
	<b>TOTAL</b>	<b>8</b>	<b>35</b>	<i>Minimum of 3, 4, 5 ticks and 12, 16, 20 points required for Bronze, Silver &amp; Gold respectively</i>

Communication				
3.01	Responsible Visitor Charter	✓	5	In folder and exhibition room.
3.02	Use of GTBS brand in on-site promotion	✓	5	Up to date list of members. Good use of plaque.
3.03	Use of GTBS brand in off-site promotion	☑		
3.04	The GTBS supply chain			
3.05	Green information for customers	✓	4	Green folder and exhibition room has excellent info. Due to size of this site some of this could be added as screens on digital display.
3.06	Green laundry practices			
3.07	Natural & healthy Living spaces			
3.08	Totally no smoking	☑		Legal compliance
3.09	Education on Sustainability	✓	5	3-10 buses per day. Sustainability big part of tours
3.10	Community work on Local Environment	☑		Have done earth day. Consider more local green projects e.g. organised local litter picks.
3.11	Local social community projects	✓	3	HS has community presence at all sites. Chernobyl children. Work with other charities e.g. Reach out...
3.12	International Social Responsibility Projects			
3.13	Visitor Payback Schemes			
3.14	Family focused Green Activities	✓	4	Bee walks, Ice age to Ice Cream, Activity room is very good.
3.15	Physical & Spiritual Health & Wellbeing			Health open days.
3.16	Social Responsibility Reporting (CSR)			
	<b>TOTAL</b>	<b>6</b>	<b>26</b>	<i>Minimum of 3, 4, 5 ticks and 12, 16, 20 points required for Bronze, Silver &amp; Gold respectively</i>

Energy				
4.01	Use of A-rated air conditioners and refrigeration	<input checked="" type="checkbox"/>		Most are A or A+. Irn Bru fridge is R600 series gas
4.02	Refrigeration: Condition and Positioning	✓	4	Good condition for most.
4.03	Mini kettles			
<b>4.04</b>	<b>Use of low energy lighting</b>	✓	3	Many halogen spots could be replaced with low e. Otherwise fluorescent in most areas
4.05	Use of Light Emitting Diode (LED) lighting	✓	2	Great opportunity for replacing halogen spots with LEDs. Some so far.
4.06	Internal lighting controls & sensors	<input checked="" type="checkbox"/>		PIR for toilets and some office. Look at other areas as well.
4.07	External Low Energy Lighting and controls	<input checked="" type="checkbox"/>		Not all low e but control board works well
4.08	Individual room heating controls	✓	4	Some underfloor, some electric
4.09	Whole-system heating and cooling controls (HO/VA/CO only)	✓	5	
4.10	High Efficiency Boiler	✓	4	New Buderus GE315 are excellent. Over 90% efficient. Old Remeha is approx. 88%
4.11	Boiler Maintenance and Burn Efficiency	<input checked="" type="checkbox"/>		Serviced every year. Could keep details
4.12	Heat Recovery			
4.13	Roof Insulation	✓	3	Some limitation but there has been upgrade for some major buildings
4.14	Glazing and draught proofing	<input checked="" type="checkbox"/>		Some secondary
4.15	Other Insulation and low energy design			
4.16	Thermostatic settings on heating air conditioners and hot water			
4.17	Hot water storage	✓	5	Excellent joint lagging. Calorifier well lagged. Also some instant hot water.
4.18	Solar Hot Water Heating			
4.19	Renewable Energy for Heating and Hot water			
4.20	Renewable Energy for Appliances and Lighting			
4.21	District heating systems and CHP			
	<b>TOTAL</b>	<b>8</b>	<b>30</b>	<i>Minimum of 3, 4, 5 ticks required for Bronze, Silver &amp; Gold respectively</i>



Water				
5.01	Water Flow Through Showers (12l)			
5.02	Water Flow through Taps – Basins and Sinks (8l)	✓	4	Most under 8lpm
5.03	Self-closing or sensor Taps	✓	5	Sensor or push
5.04	Urinal Controllers or Waterless Urinals	☑		Sensor
5.05	Low flush toilets	✓	3	6 litres on sensor. Could trial a bottle for displacement. Look for dual flush for any planned refurb.
5.06	Water efficient washing machine			
5.07	Water Efficient Dishwasher and Kitchen	✓	4	Hobart Ecomax for functions.
5.08	Drip irrigation systems	☑		Not used much
5.09	Chlorine-free water treatments			
5.10	Water Butts			
5.11	Rainwater and grey water harvesting			
5.12	Bag It and Bin It	✓	5	Excellent signage. (see Members' Area on GTBS website for more info)
5.13	Phosphate-free soaps and detergents	☑		Selden products mainly. Suggest looking at 100% phosphate free cleaners. See Green Tourism website for details.
5.14	Chlorine-free cleaners	✓	5	HS policy not to use chlorine based bleach
5.15	Natural based surface cleaners			
5.16	Natural cleaning recipes			
5.17	Ecological Water Treatment			
	<b>TOTAL</b>	<b>6</b>	<b>26</b>	<i>Minimum of 3, 4, 5 ticks required for Bronze, Silver &amp; Gold respectively</i>

Purchasing				
6.01	Supplier screening	<input checked="" type="checkbox"/>		Do have sustainable purchasing policy though cost and quality are over riding (see Members' Area on GTBS website for more info)
<b>6.02</b>	<b>Paper products in housekeeping</b>	✓	4	
6.03	Recycled content plastics and bio plastics	<input checked="" type="checkbox"/>		Green sacks
6.04	Recycled Glass Products			
6.05	Business Stationery & Marketing Materials	✓	4	Office paper is 100% recycled. Could look at recycled fro all brochures and leaflets.
6.06	Home Produced Food & Drink			Some herbs
6.07	Local Meat & Dairy	✓	3	Benugo uses Campbell's. Could tell food story more. Could still expand information on local places to eat and shop. This could encourage visitors to spend more time in the area.
6.08	Sustainably Sourced Fish	<input checked="" type="checkbox"/>		Check all are sustainable. See <a href="http://www.fishonline.org">www.fishonline.org</a>
6.09	Local Fruit or Vegetable Products	<input checked="" type="checkbox"/>		As 6.07
6.10	Local Food (non-meat & veg) & Drink	✓	3	Walkers shortbread, Ochil fudge Scottish jams etc. Could look at more local items. Some local beers
6.11	Drinking Water	✓	4	
6.12	Local Organic Food			
6.13	Vegetarian and vegan Food options			
6.14	Local Food Network or club			
6.15	Fair Trade Food & Drink	<input checked="" type="checkbox"/>		majority is FT. Could promote more on menu
6.16	Ethical and Organic Products (non-food)			
6.17	Local Craft Products	✓	4	Most products sold are Scottish - should keep trying to improve range of local products. Currently e.g. Burns Crystal, soap
6.18	Traditional Building Products & Techniques	✓	5	
6.19	Building and Decorative Products			
6.20	Sustainable Timber	<input checked="" type="checkbox"/>		Could keep certificate in file.
6.21	Natural shampoos and Hygiene Products			
6.22	Green Energy Tariff	✓	5	All sites will receive full credit. SSE 100% renewable. (see Members' Area on GTBS website for more info)
6.23	Financial Services			
	<b>TOTAL</b>	<b>8</b>	<b>32</b>	<i>Minimum of 3, 4, 5 ticks required for Bronze, Silver &amp; Gold respectively</i>

Waste Minimisation				
7.01	Returnable Packaging (bottles crates etc.)	<input checked="" type="checkbox"/>		Some used for packing.
7.02	Use less paper in marketing	<input checked="" type="checkbox"/>		Done by marketing department.
7.03	Dosing and Dispenser Systems	✓	4	Soap dispensers. Some cleaners in concentrate
7.04	Food portion control			
7.05	Specialist waste reduction measures			
7.06	Garden waste – composting and peat free	<input checked="" type="checkbox"/>		ISS deal with gardens. Composted offsite.
7.07	Rechargeable Batteries and alternatives & eco gadgets	<input checked="" type="checkbox"/>		Rechargeable radios
7.08	Electric and electronic equipment	<input checked="" type="checkbox"/>		HS disposes of any appropriately.
7.09	Printer & Toner Cartridges (purchase & recycle)	✓	4	Cartridge benefits charity. Could look at professional refills to help 'close the loop'.
7.10	Textiles, Fixtures and Fittings			Reuse of uniforms
7.11	Kitchen Waste Composting	⊙		Should encourage composting pickup from Benugo. Should check compliance with new waste Scotland regulations starting Jan 2014.
7.12	Construction Waste			
7.13	Conservation of Buildings	✓	5	
7.14	Paper reuse and recycling	✓	4	Good system for recycling with some reuse. Some visitor recycling bins in education room and other areas. Could be linked with monitoring - see 2.10
7.15	Cardboard Reuse or recycle	✓	3	As above. Try to minimise packaging from suppliers.
7.16	Glass Reuse or recycle	✓	4	As above. Mixed from Viridor.
7.17	Aluminium and Steel Recycling	<input checked="" type="checkbox"/>		As above
7.18	Plastics Reuse or recycle	<input checked="" type="checkbox"/>		As 7.14. Try to minimise packaging waste from suppliers.
7.19	<b>Hazardous waste disposal</b>	✓	4	Battery box at entrance but not visible
7.20	Dog Waste eco-treatment			
7.21	Compactors			
	<b>TOTAL</b>	<b>7</b>	<b>28</b>	<i>Minimum of 3, 4, 5 ticks required for Bronze, Silver &amp; Gold respectively</i>

Travel				
8.01	Information on Public Transport	✓	5	lots of good info onsite.
8.02	<b>Marketing Materials have Details of Public Transport</b>	✓	4	park and ride also promoted.
8.03	Car Free Activities (not VA)			
8.04	Public Transport Drop Off	✓	4	Fairly good links with train and bus. One bus comes to Castle. Other nearest is at old town jail.
8.05	Travel Incentives (not SSA)			
8.06	Information on Walking and Cycling	✓	3	Some good local resources. Consider personalising more starting from the Castle.
8.07	Cycle hire information	☑		Local is promoted
8.08	Walking and cycling organisations (HO/SSA/SC)			
8.09	Cycle Storage	⊙		Getting new rack. Check next time.
8.10	Coach Parking and Switch Off Policy	✓	5	
8.11	Staff Travel (not SSA)	☑		1 on cycle to work scheme. Could update survey
8.12	Public Service Vehicle (PSV) (Hotels/VA)			
8.13	Business Vehicles are Eco-friendly	☑		Consider a car charging point for electric vehicles. Electric buggy
8.14	Pitches for Touring Caravans (HP)			
8.15	Carbon management	✓	4	HS Sustainability Report; 25% CO2 reduction by 2015. Could make more of this available onsite.
	<b>TOTAL</b>	<b>6</b>	<b>25</b>	<i>Minimum of 3, 4, 5 ticks required for Bronze, Silver &amp; Gold respectively</i>

Nature and Culture				
9.01	Natural and Cultural Heritage Initiatives	✓	5	
9.02	Information on local cultural attractions	✓	5	Big part of shop information as well as onsite with guides.
9.03	Cultural events and festivals	☑		Stirling fringe, lots on-going.
9.04	Information about nature-related attractions in the area	☑		
9.05	Information on natural heritage	✓	4	Some nice specific information presented. List of plants in garden
9.06	Nature Diary	✓	4	What I saw today seems to work Ok
9.07	Native Tree Planting			
9.08	Wildlife Habitats			New conservation plan for garden.
9.09	Wildlife Refuges	✓	3	Scope for some specific refuges around site with interpretation.
9.10	Specialist Heritage and Cultural Buildings	✓	5	
9.11	Light Pollution			Flood light management
9.12	Accessibility to nature			
	<b>TOTAL</b>	<b>6</b>	<b>26</b>	<i>Minimum of 3, 4, 5 ticks required for Bronze, Silver &amp; Gold respectively</i>
Innovation				
10		✓	5	How green is my Castle Display
10		☑		Planting for Queen Anne's gardens.
10		☑		New booth will be sustainable
10				
	<b>TOTAL</b>	<b>1</b>	<b>5</b>	

<b>SCORING SUMMARY</b>			
<b>Sections</b>	<b>Done</b>	<b>Score</b>	<b>Percentage per section for measures scored</b>
COMPULSORY	4	20	100%
MARKETING & MANAGEMENT	8	35	88%
COMMUNICATION	6	26	87%
ENERGY SAVING	8	30	75%
WATER ISSUES	6	26	87%
PURCHASING	8	32	80%
WASTE MINIMISATION	7	28	80%
TRAVEL & TRANSPORT	6	25	83%
NATURE & CULTURE	6	26	87%
INNOVATION	1	5	
<b>TOTAL</b>	<b>60</b>	<b>253</b>	<b>GOLD</b>

<b>Maximum No. of measures scored</b>	<b>60</b>	<b>300</b>	<b>Total Percentage based on 300 pts</b>
<i>Bronze award status</i>	40%	120	<b>84.3%</b>
<i>Silver award status</i>	65%	195	<b>Award achieved</b>
<i>Gold award status</i>	80%	240	<b>GOLD</b>