

# Section 1

## Executive summary

The Green Museums survey has contacted all 240 sites and has had returns from 91 museums (to date) which equates to 40%. In addition 11 visits were undertaken shared between the pilot study and main survey. These proved to be informative, capturing a wealth of information, formal and informal on the issues of sustainability within the Museum Sector. The survey results present a positive picture of the Museums within the East Midlands. Approximately 80% have an entry level engagement with environmental practice taking place on their site. This consists of activities such as checking for leaks and switching off lights. This engagement provides a good foundation for the development of phase 2 of the project.

### 1.1 Key Findings

The following findings are based on the responses to questions indicating development of policies and outreach activities.

#### **Are Museums aware of their Environmental Footprint?**

In general the survey and particularly the interviews on sites suggest approximately 35% are actively aware of their environmental footprint and engaged in actions. It is probable that more sites are engaged in positive action but the evidence from interview suggests that they do not recognise it for what it is. A further 45% of sites practice basic environmental and sustainable actions but this is generally at a subconscious level. The remainder indicated that they may do something here and there but action is inconsistent and does not provide evidence to suggest a formal level of engagement with environmental and sustainable issues.

#### **Have any sites taken action to reduce their environmental impact or raise awareness of environmental actions?**

The survey suggests that approximately 20% of sites could be classed as 'Proactively' taking action. The survey suggests that many others up to an additional 60% are also taking basic action but at a subconscious level.

#### **What is the picture across the East Midlands and what potential is there for museums to take action?**

The outcomes from the Green Museums project suggest that 80% are engaged at an 'Entry level' with the issues of sustainability and environmental practice. By moving these sites incrementally up the scale, from 'Entry level' to 'Active' and 'Proactive' significant steps can be made in greening museums. The reality is few sites 5% where finances and new build are available will be able to become fully 'Embedded' with environmental strategies, culture, use of renewables and other technology. Yet there is a great deal to be gained by engaging with the remaining 95% of sites to Inform – Educate – Persuade.

## 1.2 Key recommendations

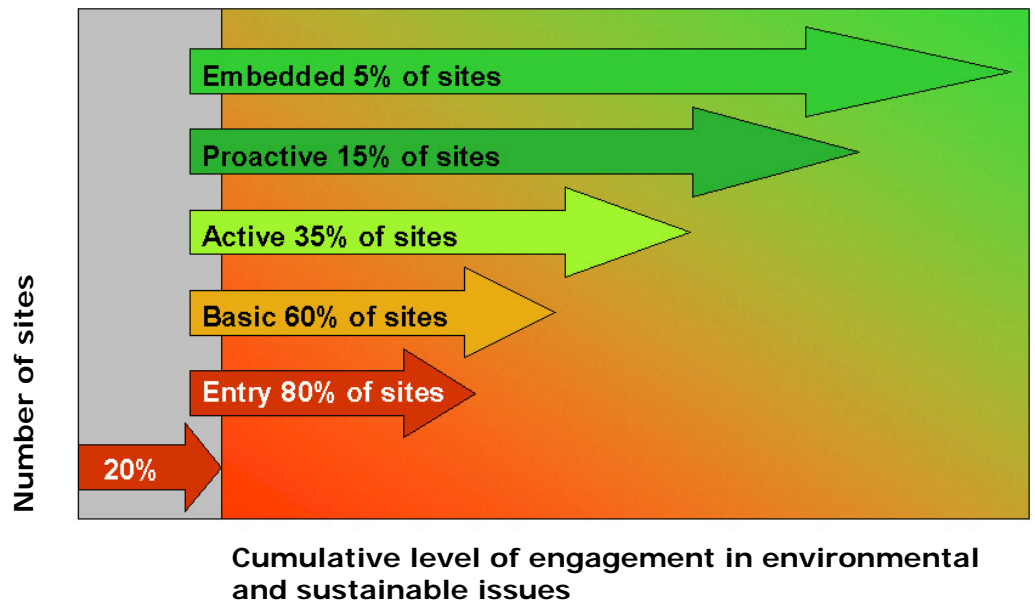
The recommendations from this study are intended to begin this process: -

- **Appoint and empower environmental site Champions**
- **Develop and maintain a site e-Log**
- **Develop and distribute a best practice guide**

## 1.3 Current status of the East Midlands Museums

The Diagram below presents the findings from the project in terms of site engagement with the survey issues.

**Estimate of the site numbers and levels of engagement based on the survey results**



**Figure 3 Level of site engagement**



# Section 2

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## Section 3 Survey Methodology

**Note:** in order that the responses from specific sites remain confidential, all the museums have been identified by a number rather than a name. These numbers are cross referenced to the survey returns.

This section discusses the development of and process behind the survey methodology for the Green Museums project. The discussion will explore the original brief requirements and outline the research's stated intentions, the outcomes of the pilot trial and subsequent development of the survey tool. Detailed discussion can be found in appendix 4



### **3.1 Project requirements**

The original tender documents required the research investigation to review the current environmental awareness and knowledge of the East Midlands' museums. The three key questions to be addressed are as follows

- Are museums aware of their environmental footprint?
- Have any sites taken action to reduce their environmental impact or raise awareness of environmental actions?
- What is the picture across the East Midlands and what potential is there for museums to take action?

The project required that all 250 sites were contacted and audited with the aim of achieving 90% returns. The feedback from the sites should provide a bench mark of the current awareness and understanding of Environmental and Sustainability issues.

### **3.2 Review of methodology**

In general the responses from the survey have been satisfactory. Those who have returned the questionnaire answered most or all of the sections required. The inclusion of space to write down good practice has had limited success. Many sites did not take the opportunity to capture their thoughts. The visits suggest that in some cases good practice was not recognised and therefore not included. However, these visits did allow the researchers to gather detailed information for eleven sites, and proved an effective way to engage with the staff. It is believed that the insight gained by this study is representative of the general opinion across the East Midlands with many of the same issues being raised by more than one site.



## Section 4 Details of pilot site visits

This section discusses each site visit made during the pilot study, the outcomes and findings are reviewed and observation made. The visits are presented in chronological order of visit. The full details can be found in appendix 2

### Pilot study visits



#### **4.1 Museum No 60**

A city centre site that is run by the Local Authority. The museum believes that the Local Authorities fiscal policy restricts the actions which the museum can take to drive forward its stated interest in becoming more sustainable. As such it has done little in the way of environmental good practice.

#### **Conclusions from site 60**

- Local Authority constraints hamper good intentions.
- General lack of knowledge and understanding of environmental issues and what could be done.
- Lack of resource – best practice information, case studies guidelines examples.
- Poor communication of official and unofficial action.
- Sites state that they monitor energy use but is unclear if any action is taken as a consequence.
- Sites state that they maintain lighting etc it is unclear to what extent action is taken. Entry level good practice should include the cleaning of reflectors, diffusers and the like, as well as replacing failed lamps.
- Low energy lighting could be used selectively in the main gallery and other areas, not only toilets and corridors.

#### Survey issues raised by the site visit

- Staff don't necessarily answer for one specific site if they work at multi sites.
- Museums don't see themselves as independent from the Local Authority.

#### **4.2 Museum 56**

A museum set in rolling country side formed as a charitable trust and run by enthusiastic volunteers. Its theme is transport and has few restrictions placed on it by the Local Authorities. They have a small central staff and visitors building plus sheds and workshops.

#### **Conclusions from site 56**

- The survey itself has acted as an awareness raising activity for this and other sites.
- This site is engaging in good environmental practices yet they do not recognise it as such.
- The staff lack imagination on what action could be taken, possibly due to lack of awareness.
- Sites need to disseminate good practice across the region.
- Staff seem to be disempowered by lack of knowledge.

#### Survey issues raised by the site visit

'Use the capital expenditure now to reduce the revenue costs in the future'

- Sites do not necessarily equate good practice with what is being explored in the questionnaire. Survey therefore needs to provide prompts to elicit the information required

#### **4.3 Museum 32**

A site situated in rolling countryside formed as a charitable trust and company limited by guarantee. The museum is mainly grassland with a small education centre and shop.

##### **Conclusions from site No 32**

- Invest capital expenditure up front to reduce ongoing costs.
- Unofficial recycling is happening at sites unbeknown to senior staff.

Survey issues raised by the site visit

- unexpected factors constrain / undermine sites good intentions. For example lack of signage from the railway station to the museum undermined a drive to encourage visitors to walk to the site. Instead of walking across country a shorter and safer route they walked up the road.
- Staff at different levels within the organisation have conflicting attitudes to environmental and sustainable issues.
- Shop staff identified the site as being open only when the shop was open. However the site is open permanently different staff have different opinions on the survey questions based on their level of knowledge.

#### **4.4 Museum 54**

This city centre site was particularly interested in maintaining its current good practice and exploring possibilities of increasing its eco potential. Yet again the researchers found that the site had restrictions imposed on them by the Local Authority and this reduced the actions that they were able to take. In this case as in some others the listing of the building and its conservation status restricted the scope for development. The site manager was attempting to do as much as possible within their remit to develop an exemplar of good practice. The museum was unsure whether the Local Authority had an environmental procurement policy or whether the site could use alternative suppliers.

##### **Conclusions from site No 54**

- Museums need a member of staff to drive their eco-vision if it is to be maintained in the long term.
- Financial savings made by Local Authorities can at times increase the environmental credentials of a site by default.
- The Local Authorities procurement policy should be made clear to the sites.
- Sites need to be aware of their energy use and be empowered to make changes in response.

Survey issues raised by the site visit

- Interviews and discussions are able to capture the richness of the activities more effectively than the questionnaire.





#### **4.4 Museum 55**

A large city centre museum, with substantial buildings and paved area. The site has aspirations of becoming more environmentally sustainable but feels constrained in their ability to make changes.

#### **Conclusions from site No 55**

- Perceived constraints from Local Authority inhibit action being taken.
- Lack of communication inhibits internal and external action and awareness.
- Lack of any written site policy limits awareness and target setting.

Survey issues raised by the site visit

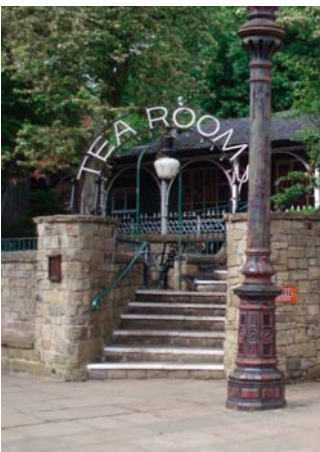
- Different people on the site have different knowledge and understanding of the issues.

#### **4.5 Summary of conclusions from the pilot study**

The pilot study as well as determining the viability and function of the survey instrument, also gathered opinion and action from the sites visited. Much of this activity was identified as good practice yet constrained by factors outside their control.

1. Many of the Local Authority sites identified (or believed) that they were constrained by their Local Authorities budgets.
2. Lack of knowledge and understanding of environmental issues and what could be done, even at a very basic level, seemed to inhibit action. The staff interviewed appeared to have a lack of resources, knowledge, case studies or information.
3. Staff at many sites answered the questions in different ways dependent on their own knowledge of what was going on. At times senior staff did not know that unofficial recycling was taking place by eco-minded staff off their own initiative. These activities are therefore not recorded in any document or policy. There seemed to be a general poor communication of environmental actions being taken.
4. A number of the sites did not correlate actions they were taking to good environmental practice. They simply engaged in the activities out of 'common sense' or 'their own eco-minded intentions'; these interesting activities are not being recorded because they are not seen as anything out of the ordinary.
5. Lack of imagination or ideas on actions that could be taken constrain some sites into doing nothing at all and or not thinking that they can do anything.
6. Sites should develop an 'eco' register or document to record activities and there by share good practice across the region. This site document will provide goals and targets for sites to aim for and incrementally 'Green their Museum'.
7. Museums need to get the message out regarding the 'little things' that are happening and make a difference and sharing this knowledge so all sites can benefit.

'I collect up the apple cores and banana skins at the end of the day and compost them at home'



'what's good  
for energy  
use is also  
good for the  
exhibits'

8. The quote cited at 4.3 above is a good practice measure in order to achieve a sustainable museum '*Invest capital expenditure up front to reduce the revenue costs of the site into the future*' and a strategy that should be flagged up to all sites.
9. The simple act of visiting some of these sites and discussing the issues has been seen by them as an awareness raising activity and a challenge to them to at least think about the issues.

#### **4.6 Survey issues raised by the site visit**

The site visits and trial of the survey tool raised a number of key issues that needed to be addressed and the approach to the survey amended.

1. Many of the sites visited had little bits of good practice whether official or unofficial, these activities are not always regarded as environmental or sustainable practice. The survey document must ensure that these are captured. In order to achieve this 'prompts' need to be embedded to tease out this information which otherwise may be missed. In response the survey tool was amended and somewhat restructured.
2. The original intention of the survey would target a number of staff at each site and at different levels within the organisation. However, the pilot study demonstrated that the different layers of staff had very varied perceptions of the environmental credentials and activities. Some staff also worked at more than one site and where this was the case they tried to answer the survey questions for multiple sites. To try and target a wide audience would confuse the survey outcome. The decision was to scale down the survey to one per 250 sites and try and gather this richer information on targeted site visits and structured interviews.
3. In circumstances where the site is run by a Local Authority the interviews suggested that the staff answered on behalf of the Authority and not the site. The survey tool was amended to include a caveat that encouraged the staff to answer for the site alone.





## Section 5 Details of main survey visits

This section discusses and presents the details of and findings from the main survey visits. For details see appendix 3

### **5.1 findings from museum visit 1**

This site did not complete the survey document, but when visited were very helpful in discussing and exploring the issues. The museum did not use low energy lighting, even though they could have done so.

An 'Innovation' to note was the use of CCTV to provide access to areas of the site that are inaccessible to disabled visitors.

### **5.2 findings from museum visit 2 Museum No 38**

This site was a complete contrast to visit No 1. This museum is on a large scale and predominantly open air with a wide array of buildings sheds and workshops. It is set in a rural location and a considerable distance from the local town. There is a bus link, however it is irregular and drops off some distance from the site entrance.

Conclusions from site visit 2

- Site champions are important for any site to develop / maintain an environmental strategy.
- Careful selection of building professionals for new build and refurbishment work is important.
- Good communication across the site allows coordination of activity.
- Written policies are helpful to record and catalogue activity.
- More could be made of underutilised assets i.e. woodland walks.

### **5.3 Findings from museum visit 3 Museum No 39**

This Museum is located in a town and has charitable trust and run by volunteers. The site is small but attracts a relatively large number of visits and parties over the course of a year, in spite of limited opening hours.

Conclusions from site visit 3

- Society could benefit from learning some lessons from historical attitudes to sustainability that were 'part of life'
- Good fiscal policy is good environmental policy
- Sites need an advocate for environmental policy
- Visitor demand is required to encourage the use of Fair Trade products.

### **5.4 Findings from museum visit 4 Museum No 40**

This site has a real interest in pushing the environmental agenda forward. However, it is constrained by the Local Authority and its status as a Grade 2 listed building. This site has instigated and implemented a variety of trial environmental projects.

Conclusions from site visit 4

- Fully engaged in environmental issues with a site champion.
- Experimentation can yield results.

'good fiscal policy is good environmental policy'

'it seems that we have lost sight of the sustainable attitudes that the Victorians had out of necessity'

- The environmental policy needs to be written in conjunction with stake holders to ensure buy in.
- Empower environmentally interested staff to instigate action and activity.

### **5.5 Findings from museum visit 5 Museum No 42**

This museum is situated on an RAF base and consists of a number of 'Portakabin' type buildings. These units are notoriously difficult to heat in the winter and keep cool in the summer. This site is unique in as much as it answers to both the RAF and the Local Authority. There appeared to be some uncertainty as to who is actually responsible for what elements.

Conclusions from site visit 5

- Sites do not understand the full scope of environmental issues that should be addressed. E.g. including lighting heating etc.
- Each site is unique with its own specific strengths and weakness that allow implementation of environmental practices.
- Each site requires a policy unique and targeted to them.



### **5.6 Findings from museum visit 6 Museum No 43**

Set within extensive managed gardens and opens spaces. The site consists of one large house that has been converted into a museum and is currently being extended and the displays refurbished.

Conclusions from site visit 6

- Sustainable practice happens as a consequence of other activities rather than as policy, but this should be recorded.
- Sites may believe they take certain action where evidence suggests otherwise.

### **5.7 Summary of conclusions from site visits.**

The following section draws together the conclusions from the sites visited in the main survey. These outcomes will provide the basis for the conclusions and recommendations that follow in section 7+8 where they will be combined with the results from the pilot study.

1. **site champions.** The survey clearly demonstrated that where the sites had an environmental champion they began to embed environmental practices driven by that advocate. In some cases where this member of staff left, the practices then ceased to be implemented. Some sites visited, although not all have someone who takes responsibility formally or informally for an element of good environmental practice. These activities should be recorded to ensure they are future proofed.
2. **intra site communication.** The survey suggested that communication is important for a successful environmental strategy. The survey suggests that where staff know what is happening they buy into that process. The site champion play an important part in this process.

'homes for bugs and beetles'



3. **encourage and recognise activities.** The research highlighted that where staff are engaged with environmental activities this should be recognised and acknowledged as good practice even when this activity is unofficial. Recognition of these activities empowers staff to take action in ways that suit their particular attitude to environmental and sustainability i.e. setting up a staff garden, taking aluminium cans home etc
4. **formalising an environmental policy.** The survey suggests that while some sites recognised the benefits of formalising an environmental policy few sites had attempted to do anything about it approximately 15%. Some suggested that they did not know where to start others, that they did not have the resources to do so. The benefits of developing a written policy are as follows:-
  - Identifies activities that are taking place and catalogues them.
  - Raises the profile of hidden or unrecognised as good practice.
  - Challenges sites to consider what, if anything they could do.
  - Ensures that any health and safety issues are managed.
  - Policies should be unique and targeted to the site and celebrate this uniqueness.
  - Involve in all staff its completion to ensure buy in.
  - Staff and environmental champions should be empowered to take action.
  - Record environmental activity that develops out of other things happening.
  - A recorded policy provides a checklist to record actions.
  - Much activity that takes place is unstructured and fragmented-a policy would tie it all together.
5. **no two sites are the same.** The research identified that there are standard and simple practices that could be instigated at all sites. These need defining in a good practice guide.
6. **new build** The work that where sites are intending to engage in new build or refurbishment activities they need support to ensure that their professional consultants are aware of eco issues. A data base of professionals with this experience could be developed and maintained to provide a resource for sites wishing to consider sustainable new build.
7. **identify** The sites should identify and make more of what sites are engaged in already. Some sites underutilise their assets-woodland walks, gardens etc. These need to be recorded in the policy document and consideration given to additional activities that could be centred around these assets.
8. **experimentation** Sites should be empowered to try things out. The survey identified one site that turned off their air conditioning and discovered it made little difference to the temperature and humidity.

9. **visitors** Should be provided with opportunities / purchase request Fair Trade goods and thereby demonstrate a demand.

10. **History** As one site stated '*we are relearning some of the practices which were common place previously driven by necessity.*'

11. '**Good fiscal policy is good environmental policy**' a number of independent sites made the above comment. These sites tended to be those who were scrimping and saving the entrance fees. In this case their motivation is much stronger than the other sites where income is not so much of an issue.



12. **Scope of interventions** Sites did not necessarily identify or understand the scope of the issues that could come under the headings of sustainable and environmental practice. They tended to look to the big items and forgot the obvious issues of lighting etc.

13. **Basic level of engagement** Most sites believe that they do the barest minimum in terms of checking for leaks and closing doors which demonstrates an Entry level of engagement. However, it is not clear what action is taken as a consequence of these activities.



## Section 6 Findings and outcomes from the survey

For the purpose of evaluation, the survey tool has been segmented by question type. The intention is to draw out the key themes namely

- Preamble sections 'About your museum'
- 'Awareness and Action & Environmental footprint'
- 'Education and Outreach'
- 'High carbon'
- 'Construction'

see document 2 for charts and diagrams

### 6.1 About your museum

The survey has successfully targeted a large cross section of museums with a variety of opening times. This represents a broad selection of sites in the East Midlands. The majority of staff answering the questionnaire identified themselves as Managerial 42% closely followed by Curatorial and Administration.

### 6.2 Awareness and action / Environmental footprint

The following section considers the results and analysis of the survey outcomes. Embedded within the survey tool are specific questions whose answers begin to define the level of site engagement. Under the following headings:

- Awareness and Action
- Environmental Footprint.

For example, where sites have responded positively to the question on development of an environmental policy, it suggests that they have embedded environmental activity into their culture with a high level of engagement.

### 6.3 Awareness and Action / Environmental Footprint

The following section relates to the questions within the survey that benchmark Awareness and Action and Environmental Footprint

#### 6.31 Sustainable Procurement

**Awareness and action** 39% of sites used suppliers with environmental policies, however this is only 13% marginally higher than the Local Authority sites alone. This suggests that only a few independent sites make the most of their ability to choose suppliers with eco credentials. This could be improved by encouraging sites to consider recycled products where possible and providing information on Fair Trade and other eco-suppliers.

**Environmental footprint** improvements could be achieved by supplying information and guidance about suppliers with environmental credentials and advise on what credentials to look for. 83% of sites stated that where they could they picked local suppliers as a priority. Local Authority sites, should be encouraged to do so. Independents who have no constraints on their buying should be supported in changing their policies. In doing so the potential would be to increase the percentage of sites engaged with this action.





### **6.32 Energy consumption Awareness and action**

Local Authority sites should be encouraged to seek advice and support from their Authority to reduce energy consumption and save money. Only 12% of sites had an energy reduction strategy in place. 37% of responders stated that they monitored their energy use. Sites should be supported and encouraged to develop and maintain an Environmental Log and target strategies and set goals to reduce their energy use. Local Authority sites should actively challenge their Authority to provide them with energy use data in order to take targeted action. Where the Local Authority does not monitor energy use, sites should encourage them to do so and or do so themselves.

#### **Environmental footprint**

Actively targeting reduction strategies and meeting these goals will provide an incentive for sites to become proactive in reducing energy use, costs and footprint. The industry standard is ½ hourly measurement, systems to achieve this are readily available. Where possible the sites should consider Green Tariff energy, however guidance is required to determine appropriate suppliers that can certify their green credentials.



### **6.33 Renewable energy**

Although few 17% sites are in a position to install renewable technology, case studies of those sites that have may stimulate ideas for and possible future developments at others.

#### **Awareness and Action**

The small number of sites that identified that they had renewable energy on site have embedded environmental issues fully into their culture and in doing so have future proofed their site against increases in running costs.

#### **Environmental Footprint**

The use of sustainable energy reduces the sites footprint and makes a powerful statement about the importance of the issues to the sector. Good practice should be disseminated across the East Midlands and sites considering renewables need support in making the right technological decisions.



### **6.34 Lighting**

#### **Awareness and Action**

A high proportion of sites state that they maintain and clean their lighting 59%. Although the survey does not define what action is actually taking place. As a consequence sites should be encouraged to work to a best practice model. Information should be provided to support their efforts and explain the improvements that can be achieved.

This maintenance can be further enhanced by the use of lighting controls. The survey suggests that these are mainly used in the Local Authority sector, for ancillary areas and external lighting. Encouraging the application of this technology for galleries and other public spaces would improve their environmental status. The independent sector should be encouraged to make use of sensors and low energy technology. However, sites need information guidance and advice.



### **Environmental footprint**

Very simple actions in cleaning and maintaining lighting systems can improve the environmental footprint by increases light output. The use of proximity sensors, photo cells and time clocks can reduce energy use and therefore the footprint substantially. The combination of sensor technology and low energy lighting can be a powerful tool in energy reduction.



### **6.35 Heating and cooling**

**Awareness and Action** Sites need to be made aware of their health and safety obligation to maintain their heating and cooling equipment regularly. This maintenance schedule will improve the performance of their equipment and save energy and costs.

71% of sites had an entry level engagement with simple energy saving strategies e.g. closing doors eliminating draughts. Sites would benefit from advice on simple interventions that can be taken to eliminate waste energy.

### **Environmental footprint**

Clean and maintained equipment reduce the energy used and therefore the environmental footprint. Simple activities such as closing doors and avoiding draughts can make a difference.



### **6.36 Catering**

#### **Awareness and action**

A small number of sites 15% evidenced engagement with plans to save energy in catering. However, the remainder would benefit from awareness raising on the simple actions that can be taken to reduce waste and energy use. As in the heating and cooling section, a significant number 33% of sites apparently do not service their equipment.

### **Environmental footprint**

Simple measures can be embedded to reduce energy use, ensuring equipment is switched off when not required, fridges are kept full and the like. Many sites suggest that they do take these action but others do not.



### **6.37 Travel and transport**

#### **Awareness and action**

A significant number of sites are accessible by public transport, however the survey does not quantify how the staff and visitors get to the museum in terms of carbon miles. It would be beneficial to quantify this travel and thereby advise on strategies to reduce the carbon cost. Sites should be actively encouraged to develop a sustainable travel policy and measure the reduction in staff /visitor miles and therefore carbon emissions.

### **Environmental footprint**

Encouraging visitors and staff to access sites by transport other than private car would reduce the environmental footprint. Sites should consider innovative ways of achieving this. E.g. shuttle bus. Creative incentives could be developed to reduce carbon. Eg: cost of the bus ticket taken off entry fee?



### 6.38 Recycling

**Awareness and action** Much good practice is taking place with 80% of sites reusing/recycle envelopes, paper etc. However, recycling is limited in most cases to staff, expansion is required to include visitors and where possible the community. Linking up with local organisations e.g. Groundwork to facilitate this activity would be beneficial. As in previous sections encouraging the sites to commit to a waste reduction strategy will enable them to drive down waste and therefore cost and drive up recycling.

#### **Environmental footprint**

Reduce – Reuse – Recycle is good fiscal and environmental practice.



### 6.39 Water

#### **Awareness and action**

The survey suggests that sites which have developed a water conservation strategy 19% have also embedded an environmental philosophy into their culture. The other sites generally do the basics, 81% check for leaks. An environmental attitude and approach to water conservation should become all pervasive and not simply isolated to those sites which have laundries or high water usage attractions.

#### **Environmental foot print**

Water is the next Carbon there is evidence in the media / industry to suggest that use of water will become the next legislative measure. Encouraging sites to embrace water saving now will bring benefits in the longer term.



### 6.40 Chemicals and cleaning materials

#### **Awareness and action**

Slightly under half of the sites 40% monitored the use of cleaning materials and tried to use sustainable products. The survey suggests that due to lack of product awareness, Local Authority procurement policy and partly lack of confidence in sustainable alternatives stop sites using these products. The sites should be supported in identifying what is available and what products are effective.

#### **Environmental footprint**

A move to eco-friendly cleaning materials and chemical use where possible would benefit the sites environmental credentials.



### 6.41 Biodiversity and land care

#### **Awareness and action**

27% of sites had guidelines developed for the maintenance of their green spaces. These sites have taken a proactive stance in developing targets and strategies for biodiversity. Other sites felt they were unable to take this action due to lack of space and other constraints. The survey suggests that given good practice guidelines and case studies more sites could be encouraged to engage.

#### **Environmental footprint**

Engagement with issues of Biodiversity does not affect museums environmental footprint directly. However, the act of encouraging wildlife, bugs and insects is a pointer to the

seriousness with which they engage with the issues. As exemplified by the staff garden at one site visited.

### 6.14 Conclusions

Based on the evidence of the survey questionnaire the sites can be categorised into 5 levels of engagement with sustainable and environmental issues. Those sites who have implemented the very simple 'common sense' approaches can be defined as 'Entry level', those sites who have embedded environmental strategies fully into their museums philosophy can be defined as 'Embedded'. At the Entry level the actions implemented appear, from the survey, to be subconscious and either good fiscal or common sense policy. At the higher levels the approach is much more deliberate and conscious. The results also suggest that at the base level the interventions are inward focused 'what can we do' as you progress higher up the scale the sites present a more outward looking philosophy of informing educating and persuading. There is of course a degree of cross over between the two. The strategy for the East Midlands Museums should be an incremental movement of sites up the scale.



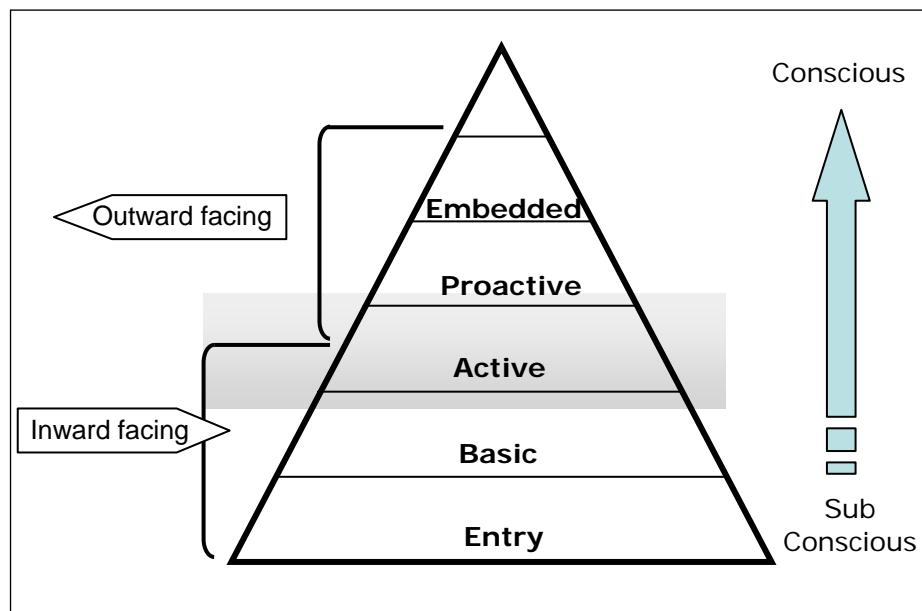
The following table defines the criteria by which site's engagement levels can be identified

<b>Entry</b>	<ul style="list-style-type: none"> <li>Little evidence of awareness of energy and sustainability issues</li> <li>Check for leaks reduce draughts</li> <li>Basic maintenance strategies in place</li> <li>Purchasing recycled products</li> <li>Use of local suppliers</li> <li>Monitoring settings</li> <li>Reuse recycle paper envelopes etc</li> </ul>
<b>Basic</b>	<ul style="list-style-type: none"> <li>All of above plus: -</li> <li>Limited engagement in environmental and sustainable issues.</li> <li>Some evidence of good practice</li> <li>Some knowledge of the issues</li> <li>Use of low energy lighting – ancillary areas</li> <li>Efficient use of equipment</li> <li>Monitor chemical use</li> </ul>
<b>Active</b>	<ul style="list-style-type: none"> <li>All of above plus: -</li> <li>Some engagement in environmental and sustainable issues and practices.</li> <li>Thinking about writing policies</li> <li>Evidence of good practice</li> <li>Limited recognition of educational endeavour</li> <li>Planning for site developments</li> <li>Stocking Fair Trade products</li> <li>Water saving measures</li> <li>Monitor energy use</li> <li>Some use of lighting controls</li> <li>Sustainable travel</li> <li>composting</li> </ul>
<b>Proactive</b>	<ul style="list-style-type: none"> <li>All of above plus: -</li> <li>General engagement in good practice across most areas.</li> <li>Written or in the process of writing policies</li> <li>Outreach and educational activities</li> </ul>

	Use of suppliers with eco credentials Lighting controls Waste minimisation strategy Water conservation Policy for green spaces
<b>Embedded</b>	All of above plus: - Strategic use of resources to embed good practice into the future Written policies for most areas Targeted outreach activities Eco procurement policy Energy reduction strategy Use of renewables

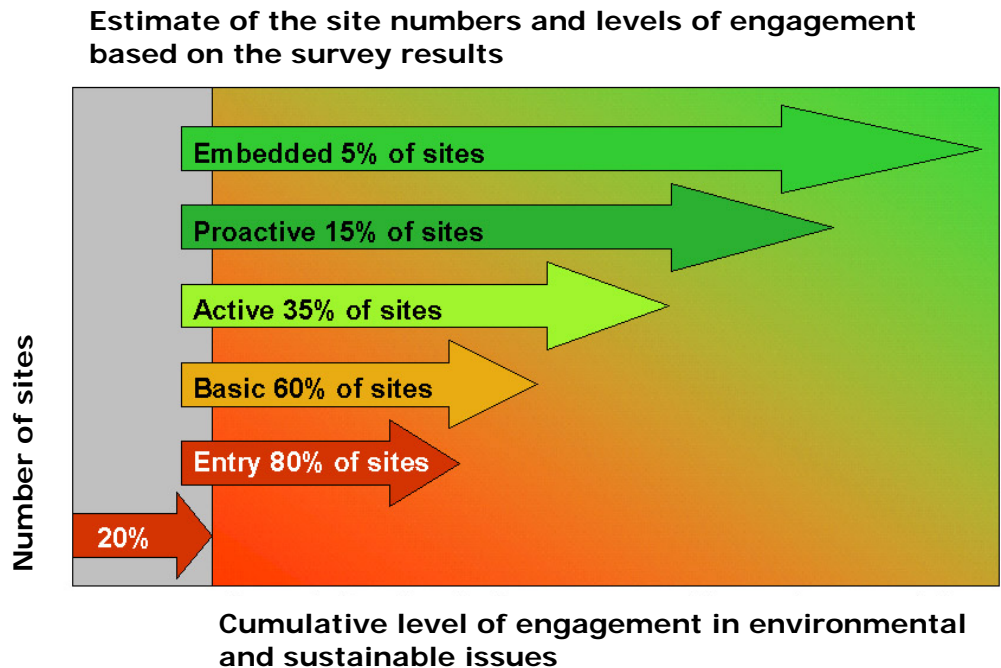
**Figure 2 Definitions of the levels of engagement with environmental and sustainable issues**

The current status of the sector based on these survey results is illustrated in the following diagram.



**Figure 1 Hierarchy of site engagement**

The following diagram plots the engagement of the sites surveyed against the numbers of sites. The diagram represents a cumulative engagement with the Embedded sites undertaking all the activities from those. The evidence from the survey suggests that most sites have some engagement with the issues at an 'Entry Level'. The 20% of sites that demonstrate little or no engagement.



**Figure 3 Level of site engagement**

The following section discusses questions relating to Education and Outreach

**6.4 Education and Outreach  
Awareness and action**

A significant majority of sites 71% identified that they had a role to play in the environmental education of their visitors. 44% of sites stated that they had organised activities or events, whilst only 23% had a strategy to achieve environmental education. The survey suggests that museums are generally positive towards this aspect of their work.

The survey visits suggested that the educational work was rather ad hoc with some sites having undertaken activities which had not been identified as outreach. The ad hoc nature of the outreach is further supported by evidence that only 23% of the sites surveyed had a strategy to achieve their educational work yet 71% stated that it was a role they should play. Site require support to formulate their educational and outreach activities.

'this is 1950's technology and its not intended to be friendly to the environment.'

The following section discusses questions relating to High Carbon activities:

### **6.55 High Carbon Awareness and Action**

The survey identified a small number of sites 15% which stated that they had carbon intensive activities. Of these 27% implemented CO2 reduction strategies and a significant number used 'greener fuels'. Some namely 9% of these sites offset their emissions.

The sites have a dilemma when it comes to these activities. They want to display steam engines, trains and the like but also want to be seen to engage with good practice without detracting from the exhibits. These sites would benefit from support and guidance on offsetting and low carboning their displays.

### **Environmental Footprint**

Sites when interviewed showed little understanding or imagination of what they could do to off set their carbon or change to a greener fuel. The sites in this category need advise and guidance regarding off set or methods of carbon reduction.

The following section discusses questions relating to construction and building:

### **6.6 Construction Awareness and Action**

The survey identified 20% of the sites who responded had undertaken some form of new build in the last 5 years, of these a significant proportion namely 67% had developed their new build to standards over and above those required by law. The survey does not identify what this actually means for these sites and what standards where implemented.

### **Environmental Footprint**

The survey found positive evidence that sites where actively trying to improve on their Environmental Footprint when it came to the opportunity of new build. When visiting sites who were engaged with construction it was clear that they 'trusted' their Architect or similar with embedding sustainable technology. Sites would benefit from recommended professionals to ensure that they employ the best specialist possible when looking for an environmental or sustainable option.





# Section 7

## Conclusions

The original project required the following key activities to be identified Environmental Footprint, Awareness and Action, Themed Activity. This section defines the conclusions under these headings:



### **7.1 Environmental foot print**

The survey identifies that many sites were engaged in simple practices that benefit their environmental impact approx 80% for example checking for leaks, closing doors etc. However, the museums did not appear to be doing this based on a drive to reduce their environmental footprint but simply because either it's common sense or standard practice. Whether these basics are being done effectively and consistently is not revealed by the survey.

Many sites also stated that they measure their energy use and look for discrepancies. However what is not clear is the actions and activities that result from this exercise.

### **7.2 Awareness and action**

Sites seemed to lack awareness of what they were or were not doing. Those sites with advocates for environmental action appeared to encourage staff to engage in both formal and informal environmental activities e.g. staff garden.

A number of sites were engaged in activities that improved their environmental credentials but they did not correlate these actions with good environmental practice e.g. inviting the local RSPB group in to manage their woodland. There is no holistic awareness of the impact of activities.

This lack of awareness was also demonstrated in some sites visited where senior staff did not know that unofficial recycling activities were taking place. These activities need to be recognised and recorded in order to further reduce the environmental footprint.

The sites that were engaged in awareness raising generally had a theme in some manner linked to environmental issues e.g. transport, those that did not, seemed to feel it was not their role. In some cases, sites where engaged in activities, woodland walks or similar they did not recognise these as awareness raising activities or vehicles for environmental education.

### **7.3 Themed activities**

Very few sites had any recognised themed activities and where they did they were particularly conscious that environmental education was in their remit. Some sites did have passive themed activities such as Bird boxes, Bat boxes woodland walks, but did not recognise them as such.

#### ***7.4 constraints on environmental practice***

The majority of sites cited financial constraints as a reason they could not engage in environmental and sustainable practice. This was clearly split into two distinct types: the sites which were Local Authority and those that were not. The former believed that they were constrained by their Local Authority spending, budgeting and cost saving. The latter had limited resources and were constrained by the money that they received from visitors.



## Section 8 Recommendations

The following section draws together all the results and conclusions from the previous sections and consolidates them into three generic outcomes. In doing so some of the richness of the findings are lost, it is important in order to get the full picture to consult with the sections 4&5 as well as this summary.

### **8.1 Site champions develop in Phase 2**

Each site to have an environmental Site Champion a member of staff whose remit is to obtain and maintain an overview of what activities, interventions, ideas and strategies the site can put in place. This Champion would not necessarily be responsible for planning or managing these actions, but would be a portal to record what the site is doing. The champion would be a point of contact and disseminator for information and communication. This champion should be empowered to make decisions and experiment with low level actions and interventions.

### **8.2 Environmental log (policy) e-Log develop in Phase 2**

Each site to develop and maintain a site environmental and sustainability log. This log forms a record of what the site is doing or planning to do to improve its environmental and sustainability profile. The log should record both official and unofficial activities that are taking place. It should also identify activities that are environmentally themed but have been overlooked. This log would be maintained by the site Champion and include targeted activities

### **8.3 Good practice guide develop in Phase 2**

The East Midlands should develop a Good Practice guide of environmental and sustainable activities. This should include a catalogue of simple actions and strategies as well as recording and disseminating good practice at other sites. The log would also record for dissemination more substantive actions where all the sites can benefit from what others are doing E.g. new build, outreach activities, renewable sources of energy etc. This may also provide a directory of contact where activities are taking place for other sites to benefit from this experience.

### **8.4 Education and outreach**

Many sites have the potential to act as centres for education and outreach. The sites that recognise their potential for outreach and are engaged with it are generally those where environmental and sustainability is embedded. However, a number of other museums are also taking action and education but do not recognise it as such. The e-Log and site Champion should develop a record of activities and act as a conduit for sharing ideas and good practice sector wide to help sites with their role of educating and informing the community.



## Section 9 Forward strategy

Following this survey and its recommendations the following strategy has been formulated to develop the project into phase two and beyond.

### ***9.1 good practice guide develop in Phase 2 and 3***

The survey identifies a lack of knowledge and understanding of environmental good practice. Lack of understanding is hindering action. The lack of awareness is also reflected in activities not being recognised as good practice. A detailed and updateable resource should be developed. This should provide information for staff to facilitate identification of existing and potential for actions and activities that could be undertaken in order to improve their current strategy. This should embrace simple ideas and actions as well as including more sophisticated interventions. This resource may include names and contact numbers for sites that have embedded heat source pumps, hydro electric installation and the like. The development of this guide should form a major part of phase 2. Collating and disseminating this information could have a significant impact on museums East Midlands wide. This resource would be more effective in changing culture and behaviour to a wider audience than targeting a small number of specific sites.

### ***9.2 Environmental Log (e-Log) develop in Phase 2***

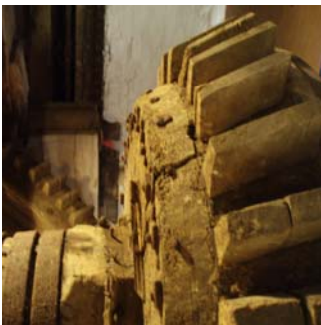
The sites should be provided with a pro-forma document to act as a log to recorded and disseminate activities taking place on site. This would also identify actions that sites wish to take and communicate this to senior staff to identify sources of revenue. This data base would then inform the good practice guide for updating. This material may not be hard copy.

### ***9.3 Lack of knowledge develop in Phase 3***

The museum service should consider the development, in conjunction with De Montfort University CPD module that will assist staff in understanding and engaging with environmental issues in order to facilitate their activities.

### ***9.4 Conclusion***

It is believed that this integrated approach to providing, recording and capturing information, ideas and good practice would be a benefit to all the sites in the East Midlands and become a stimulant for managing change.



## Section 10 Research Documents

Amongst other documents the following material was reviewed for this project.

An Environmental Audit fro Your Parish Churches' Agency on Social issues  
New Zealand

Bath and North Somerset local Plan sustainable Development Appraisal

CIBSE Guide F Energy Efficiency in Buildings

Defra Uk Environmental Protection Appraisal

General Construction & Building Sector Hazardous Waste Reduction Plan

Green Future Roadmap energy Audit Tool

High Peak Local Plan Chapter 12 Environmental Appraisal

Penwith district Council – Sustainable development policy

Think Leadership green Schools Audit