West Somerset Railway Heritage Trust

Registered Charity No. 265564

Collections Care Plan

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Introduction.

1) This plan sets out the actions required to implement the Care and Conservation Policy. It should be read in conjunction with the Forward Plan, Building Plan and Emergency Plan and any other plans affecting the collection and the museum buildings.

2) The museum has consulted with, the regional Conservation Development Officer (CDO) and obtains regular up to date advice (see: https://southwestmuseums.org.uk/who-we-are/our-team/)

3) Any problems or concerns relating to the care of the collection are referred by the Curator to the CDO or another appropriately qualified conservator.

Overview of Current Collections Care and Conservation.

1) The plan sets out how the museum currently undertakes Collection Care and Conservation. Collection Care activities are carried out by the Collections Care and Housekeeping Team, with support from Museum Stewards who report to the Curator by quarterly report.

   Note: A Collections Care and Housekeeping Team to be recruited and trained.

2) Conservation of the collection is carried out by or supervised by appropriately trained and experienced conservators.

3) Records of Collection Care activities are kept in the Collections Care folder in the Museum Office. The museum retains records of every treatment carried out on objects, by in-house staff or external conservators. Records are added to an object's catalogue entry according to the procedures set out in the museum's Documentation Procedural Manual.

4) It is the Curator's responsibility to ensure the measures relating to documentation of the condition of collections and any treatment carried out are in place, communicated and acted upon.

Collection Needs and Vulnerable Objects.

1) The condition of the collection is recorded by The Collections Care Team who perform quarterly checks on our vulnerable/significant items in addition to a random sampling of objects from the displayed and stored collection. The results are recorded in the Collections Care Folder in the Museum Office.

2) A copy of the forms used are available in *Appendix A* and *Appendix B*.

3) Changes in the condition of any object are notified to the Curator for action in line with the museum's Forward Plan.

4) Every object loaned from the collection has its condition checked and recorded when it leaves and when it returns to the museum. A copy of the form used is available at *Appendix C*.

5) The museum is aware that the following objects and collections have particular needs or are vulnerable:

Object or Collection Type	Need or Vulnerability	Required Actions
9038 Sleeping Car.	Unique object (only one in existence) Important to GWR story Valuable Working object – subject to associated risks Compound object – combines multiple materials with conflicting collection care needs.	Monitor regularly for: Damp/cold/heat. Signs of rust/corrosion. Paintwork/varnish/surface coverings damage. Insect pests. Light damage. Damage caused by visitors.
King Henry II nameplate.	Very rare object (only two originals existing) with links to constitutional history. Very valuable.	Monitor regularly for: Signs of rust/corrosion. security of fastenings. Also monitor security (Theft, vandalism).
Broad Gauge track gauge, Bristol & Exeter Railway.	Very rare object and one of few Bristol and Exeter	Monitor regularly for: Signs of rust/corrosion.

	Railway artefacts dating from before 1876.	Damage to paintwork. Damage caused by visitors. Also monitor security and fixtures.
Bristol and Exeter Railway milepost.	Rare object (few remain in existence), local to line. Part of WSR story.	Monitor regularly for: Signs of rust/corrosion. Damage to paintwork. Damage caused by visitors. Also monitor security and fixtures.
Length of West Somerset Mineral Railway cast iron rail.	Very rare object, lightweight rail with unusual cross section. Local significance.	Monitor regularly for: Signs of rust/ corrosion. Also monitor security.
GWR Fire Pump.	Rare item, wooden, from Exeter St David's Parcels Depot. Several attachments.	Monitor regularly for: Damp/cold/heat. Insect Pests. Degradation of wooden construction materials. Degradation of paintwork. loss of accessories. Vulnerable to fire damage. Also monitor security.
BR Totem signs for Taunton and Minehead.	Enamel signs for either end of the line. Strong local interest, with few examples remaining. Part of WSR story.	Monitor regularly for: Signs of rust/corrosion. Degradation of paintwork. damage by visitors/careless handling. Also monitor security.
Box of documents relating to first five years of WSR as a preserved railway.	Paper documents of publicity material relating the early days of the line in preservation. Not rare, but valuable as a comprehensive collection relating to the early years. Core part of WSR story.	Monitor regularly for: Damp/cold/heat. Insect Pests. Light damage. Ideally requires temperature and humidity-controlled conditions. Vulnerable to fire damage.
Braille measuring steel tape for use in tunnels.	Steel tape with raised braille markings in feet. Thought to be rare, and unusual and interesting item to show early engineering ingenuity.	Monitor regularly for: Signs of rust/Corrosion. Degradation of paintwork. damage by visitors/careless handling. Also monitor security.
GWR Hallade portable track recording machine.	Clockwork track recorder used for measuring track irregularities, with paper tape output dating from 1967. Several in existence.	Monitor regularly for: Dust. Damp/cold/heat. Light damage. Insect pests. Delicate scientific instrument. Needs secure storage or display.

Monitoring and Improving Environmental Conditions including Temperature, Relative Humidity (RH), Light and Dust.

1) Temperature and Relative Humidity (RH):

a) The museum monitors and records the temperature and relative humidity (RH) in the storage and display areas.
b) The museum aims to maintain conditions which are as stable as possible, within the range 12 – 20°C and 45 – 60% RH.
c) Special conditions are required for the Archive Store, which needs to be maintained at 45-50% RH.
d) If the conditions fall outside the desired range, the cause is investigated, and action taken to improve conditions.
e) The current system is to monitor specific zones within the museum using data loggers on a bi-monthly rotation.
f) Readings are recorded in the form of printouts from the dataloggers, showing trends over a period of two months, with spot checks also being carried out in non-monitored zones and recorded on the relevant form. A sample recording sheet is available at Appendix D.
g) The readings are examined by The Collections Care Team or Museum Stewards and reported to the Curator.
h) All readings are filed in The Collections Care Folder in the Museum Office and kept for 3 years.
i) All the devices are calibrated by the Collections Care Manager at yearly intervals.
j) The museum uses the following to control the environment:

i) 3x portable radiators (stored in the museum office and the two storerooms. These are used to regulate temperatures when required).
ii) 2x dehumidifiers (In the museum stores. Used to regulate RH when required).
iii) 2x tower fans (in the museum stores. Used to provide air circulation and regulate temperature and RH).

k) Objects which require extremely dry environments should be kept in well-sealed display cases or acrylic, polythene or similar inert material boxes with a sufficient quantity of silica gel. The silica gel should be checked by the Collections Care Team every 3 months and replaced with dried or conditioned silica gel as and when necessary.
l) The equipment which controls the environment is checked every three months by the Curator who will carry out any repairs/replacements required.

2) Light:

a) No objects are exposed to direct sunlight. Objects are protected from unnecessary exposure to light, e.g., when the museum is closed. Storage areas are kept dark when not in use.
b) Ultra-violet light is excluded as much as possible. There is a plan in place to replace the current lighting system in the museum. All replacement lighting will be Ultra Violet (UV)-free alternatives such as a light-emitting diode (LED) bulbs wherever possible. Fluorescent lights should be fitted with UV filters.
c) Non-LED lights should be tested for UV emission using a UV meter (available on loan from the CDO) at quarterly intervals by a member of the Collections Care or Stewards Team. The results are recorded in the Collections Care Folder in the Gauge Museum Office.
d) Visible light levels are checked using the museum's light meter whenever the lighting is changed (lights are moved or new bulbs fitted). This is the responsibility of the Collections Care or Stewards Team. The results are recorded in the Collections Care Folder.

Note: Consider purchasing a UV light monitor – a long-term aim.

e) Light-sensitive material is not left on permanent display.
f) The museum aims to keep light exposure for very light-sensitive material to below 150,000 lux-hours per year and for less sensitive material to below 300,000 lux-hours per year. The museum will remove objects from display if light exposure is deemed to be too high.
g) Light dosimeter cards (or dataloggers) are placed in the seating compartment of 9038 and examined at the end of each season by the Collections Care Team for changes. Any changes are recorded on the objects' catalogue entries and notified to the appropriate authority so that action can be taken.

3) Dust:

a) Objects are not left exposed to dust if possible. They are protected by being kept in boxes or display cases or covered with Tyvek or cotton covers or acid-free tissue paper. If objects need to be protected with polythene sheet or bubble wrap, they are first covered with acid-free tissue paper. Covered objects and objects in boxes are clearly marked to identify the object inside.
b) Dust levels in the museum are controlled by:

i) Good housekeeping.
ii) Keeping external doors and windows closed whenever possible.
iii) Using mats to trap dust from shoes at entrances.
iv) Keeping the approach to the museum clean.
v) Sealing off areas where building work is taking place.

c) It is the Curator's responsibility, along with the Collections Care and Housekeeping or Stewards Teams, to ensure the measures relating to monitoring and improving the environment are in place, communicated and acted upon.

Note: The conditions above make this a massive undertaking to effectively achieve. Due to the make-up and original building design, it is extremely challenging to set up conditions that can be environmentally controlled throughout. The nature of the building makes it unbearably hot in summer and freezing or below in winter. The humidity levels generally depend on the outside environment and the light is dependent on high sky lights. Dust is also a significant factor – the museum is situated on platform 1 of a heritage steam railway which is itself a generator of many toxic and corrosive materials.

Managing the Threat from Pests.

1) Quarantine:

a) Any object coming into the museum (even returning objects which have been on loan) will be kept separate from the collection until it has been fully examined by a member of staff.
b) Objects which have to be stored in the museum awaiting examination will be kept away from the collection or isolated by placing them in a polythene box on a pad of acid-free tissue or wrapping them in polythene sheet, lined with acid-free tissue. They will be examined as quickly as possible, especially as there is a risk of damage if they are damp.

2) Monitoring.

a) Sticky traps are placed in the storage and display areas, along the floors, near doorways and windows, on windowsills and occasionally on shelves, to monitor insect activity especially in dark, quiet areas. Hanging sticky traps or special wall-mounted traps are also used if any moths are seen.
b) The traps are checked monthly between February – June and then every two months for the rest of the year (e.g., February, March, April, May, June, August, October, December).

c) A sketch plan is made of each room, showing the location of the traps. The traps are numbered. Each trap is examined by a member of the Collections Care Team in a good light using a magnifying lens and the results recorded in the Collections Care Folder in the Museum Office An example of the record sheet is available in *Appendix E*.

Note: Recruit and train a team of volunteers to carry this out.

d) If pests are found which are potentially harmful to the collection or building, a conservator is asked for advice which is then acted upon.

3) Prevention.

a) All staff are trained to be aware of the risk of pests and know how to report any observed pests or suspected pest damage. Areas where vulnerable parts of the collection are kept are identified and labelled so that staff are aware to take extra care in these areas. Impermeable gloves are worn when handling objects to reduce the possibility of mould growth and pest attack.
b) No food or drink is kept in any area where the collections is stored or displayed. Waste bins are emptied daily. Good housekeeping keeps the museum clean, reducing the risk of infestation by pests.
c) Windows and doors are kept shut whenever possible. All vents in the walls are protected with mesh screens.
d) Areas which are full of boxes and objects are deep cleaned every year. All boxes and objects are removed from shelving, the shelving and walls wiped clean with microfibre cloths and then the objects are replaced.
e) Good ventilation is important for preventing mould and pest infestation. Storage areas are opened up regularly and fans used to encourage air flow when necessary. Objects are stored in a way to allow air movement around them. Boxes are kept at least 100mm (4 inches) away from walls. Objects are not left on the floor or stacked against external walls.
f) Any mouldy or pest infested packing material is thrown out promptly. Any information on it is recorded first.
g) It is the Curator's responsibility, along with the Collections Care and Housekeeping or Steward Teams to ensure the measures relating to pests are in place, communicated and acted upon.

4) Housekeeping.

a) No polishes, cleaning agents or sprays are used in the museum without the advice of a conservator.
b) Synthetic (not feather) dusters are used on walls, lights, and ceilings (not objects). Microfibre cloths (dry or dampened with clean water), brushes and vacuum cleaners are used for cleaning the building.
c) Housekeeping does not include cleaning objects on open display.
d) Storage areas:

i) Floors are cleaned by a conservator every [*period of time – to be defined*].
ii) Shelves, worksurfaces and ledges are wiped down with microfibre cloths by a conservator every [*period of time – to be defined*].
iii) Rubbish bins are emptied daily by anyone using the store.
iv) Walls are wiped down by a conservator every [*period of time – to be defined*].
v) The areas are deep cleaned by the Housekeeping Team every year.

5) Display areas:

a) Floors are cleaned by a conservator every [*period of time – to be defined*].
b) Cases are wiped with microfibre cloths by a conservator every [*period of time – to be defined*].
c) Shelves, worksurfaces and ledges are wiped down with microfibre cloths by a conservator every [*period of time – to be defined*].

d) Rubbish bins are emptied daily by duty stewards.
e) Walls are wiped down by a conservator every [*period of time – to be defined*].
f) The areas are deep-cleaned the Housekeeping Team every year.

6) Other areas:

a) Floors are cleaned by a conservator every [*period of time – to be defined*].
b) Shelves, worksurfaces and ledges are wiped down with microfibre cloths by a conservator every [*period of time – to be defined*].
c) Rubbish bins are emptied daily by anyone using the office.
d) Windows are cleaned internally with microfibre cloths by a conservator every [*period of time – to be defined*].
e) Walls are wiped down by a conservator every [*period of time – to be defined*].
f) The areas are deep cleaned by the Housekeeping Team every year.

7) It is the Curator's responsibility, along with the Collections Care and Housekeeping teams to ensure the measures relating to housekeeping are in place, communicated and acted upon.

Conservation Cleaning of Objects on Open Display (or in Open Storage).

1) Wherever possible, objects are displayed in secure, suitable cases and stored in appropriate boxes. Where this is not possible, objects on open display or in storage are carefully monitored and recorded and appropriate action taken when damage or dirt is observed. Objects are not cleaned regularly, only when they require it, to prevent unnecessary abrasion and damage to the surface.

2) Delicate objects including the signalling equipment should only be cleaned by an appropriate expert.

3) More robust surfaces may be cleaned using the brush vacuum method:

a) Examine the object carefully and make sure that it is safe to clean.
b) Choose a suitable soft brush and make sure the metal ferrule is covered with masking or electrical tape.
c) Cover the crevice nozzle of a vacuum cleaner with a piece of soft net or tights, held in place with a rubber band.
d) Taking care not to touch the object with the vacuum cleaner hose or other apparatus, gently brush the loose dust off the object into the nozzle of the vacuum. Do not touch the object with the nozzle.
e) Examine the object again, record your treatment of it and any observations.
f) It is the Curator's responsibility, along with the Collections Care and Housekeeping teams to ensure the measures relating to conservation cleaning of objects on open display are in place, communicated and acted upon.

Documentation of the Condition of the Collection and of any Treatments carried out on Objects.

1) The museum keeps records of all condition checks carried out on objects and of any treatments carried out on objects in the MODES database on the computer in the Gauge Museum office. Any conservator carrying out treatments on objects from the collection is required to supply copies of the treatment records in a format suitable for the museum's recording system. The details of the condition checks carried out on the collection are set out in this Plan.

Storage Materials and Methods.

1) The museum is aware that all objects should be protected in inert packaging materials in a way which protects the object from chemical or physical damage.

2) The museum replaces any inappropriate boxes and packing materials with more appropriate materials such as acid-free tissue paper or spider tissue, Tyvek fabric, polythene foam or polyester wadding covered with scoured cotton calico, and boxes made from acid-free card, polythene, inert styrene or polypropylene as detailed in *Signposts Factsheet No 2 Materials for Storage and Display* (downloaded from the Collections Trust website). Please see 'Forward Plan' for details of the conservation budget each year for repacking.

3) Objects which are too large to be boxed are covered with acid-free tissue or Tyvek fabric.

4) No object is stored on the floor. Very large objects are stored on padded chocks or a pallet. Smaller objects are stored on shelves which are lined with Jiffy polythene foam or acid-free tissue.

5) It is the Curators responsibility to ensure the measures relating to storage materials and methods are in place, communicated and acted upon.

Display Materials and Methods.

1) The museum uses secure display cases whenever possible.

2) Mounts are constructed to provide support for the object and protect it from physical damage during display and handling.

3) No object is permanently changed by its attachment to a mount (e.g., by drilling or using adhesive). Mounts are suitable padded and sealed to protect the object (e.g., where possible metal hooks or pins are sealed with an inert varnish or heat shrink polythene tubing).

4) Objects on open display are checked by The Collections Care Team every 6 months and their condition recorded on the Collections Care plan. Objects on open display are secured using the least damaging method possible.

5) It is Curator's responsibility, along with the Collections Care Team to ensure the measures relating to display materials and methods are in place, communicated and acted upon.

Handling Methods.

1) Only trained people are allowed to handle objects from the collection.

2) The museum has written guidelines for handling objects which all staff (paid and volunteer) and visitors must agree to follow before being allowed to handle objects.

3) The handling of some objects may be restricted owing to the presence of hazards or principles of cultural sensitivity.

4) For the safety of both objects and people, impermeable gloves are worn by everyone handling accessioned objects.

5) It is the Curator's and the Archivist's responsibility to ensure the measures relating to display materials and methods are in place, communicated and acted upon.

Transport Methods.

1) Objects are carried between rooms and buildings in suitably padded containers.

2) Always travel with sufficient documentation.

3) Never leave objects unattended in vehicles.

4) Changes of location longer than part of a day are recorded in writing at the end of each working day, according to the procedures set out in the museum's policies and protocols.

5) It is the Curator's responsibility to ensure the measures relating to transport methods are in place, communicated and acted upon.

Artefact Entry.

1) Objects loaned are only accepted from Accredited Museums or recognised Heritage Sites. No loans from individuals can be accepted – donations or bequests only. Loans are accepted for a maximum period of 12 months but are renewable by written agreement. Long term loans will be accepted subject to prior written agreement. The museum treats all incoming loans according to the requirements set out in the loan agreement between it and the lending body.

2) The museum will notify the lending body if there is any change in its circumstances which mean that it can no longer meet the requirements set out in this agreement.

3) If the lending body does not supply a Condition Check Form for each object, the museum will use its own Condition Check Forms as at *Appendix C*.

4) It is the Collections and Documentation Team's responsibility to ensure the measures relating to loans in are in place, communicated and acted upon.

Artefact Exit.

1) All requests for loans from the collection will be assessed individually before a decision is reached. The condition of the objects, the location, environment and security of the venue, transport and personnel involved will all be reviewed. Every borrower will be asked to fill out a Condition Check Form as at *Appendix C*.

2) For particularly valuable objects, additional information regarding display cases and security may be requested using the supplementary templates available from the *UK Registrars Group* or the museum's equivalent.

3) Security, environmental, handling and conservation conditions are stipulated by the museum and agreed with the borrower as part of the loan agreement.

4) If agreed, the condition of the object to be loaned will be recorded using the Condition Check form available at *Appendix C* and with photographs showing all parts of the object and with existing damage clearly marked. This form is part of the loan agreement, and a copy will accompany the object when it leaves the building.

5) Every object is checked against the original condition report when it is returned to the museum. The loan details and the outcome of the check are recorded on the object's catalogue entry.

6) It is the Collections and Documentation Team's responsibility to ensure the measures relating to loans out are in place, communicated and acted upon.

Workforce Training.

1) It is the museum's policy that only people who have received appropriate training should handle or work with objects from the collections.

2) Necessary and ongoing training is sourced so that paid staff, volunteers, visitors, or researchers who handle artifacts and/or collections receive appropriate and suitable training. This may include in-house induction and training courses, a period of shadowing an experienced member of staff, the provision of clear guidance materials, factsheets, posters, etc.

Plans for Improvement.

1) The WSRHT recognises that there are many areas in their museums that require improvement. Using Signposts in Collections Care, the Curatorial team have identified the following areas to be developed over the next five years in order to reach Accreditation Standards and have used these to develop the attached action planning:

Actions for Collection Care Range Statement.

Level 1	Level 2	Level 3	Notes and Evidence
Some objects in the collection are more vulnerable or sensitive than others (4.5.2a)	Inspect the collection visually but do not record the results. We know which types of material are vulnerable or sensitive (4.5.2a)	Inspect all the collections regularly, noting especially the objects which may be vulnerable or sensitive and recording the results. We have a Collection Care Action Plan to make the improvements needed (4.5.2a and 4.5.2f)	Vulnerable items within the collection have been identified and monitoring/recording systems have been established, see *Appendix A*
Clean display and storage areas (4.5.2e)	Clean display and storage areas at least twice a year (4.5.2e)	Use the appropriate techniques, materials and equipment to clean the display and storage areas. Clean and inspect these areas regularly (4.5.2e)	Storage areas have been cleaned, waterproofed, re-organised and extended as part of the NLHF project. Display areas have been deep-cleaned and re-decorated. Specialist cleaning supplies including brushes, cleaning cloths and heritage grade hoovers to be used. Recording systems for monitoring the general collection have been established *Appendix A*. A rolling program of regular cleaning for these areas is to be established.
Check display and storage areas for pests (4.5.2e)	Check display and storage areas for pests regularly (4.5.2e)	Monitor display and storage areas for pests, check the traps, and identify the trapped insects (4.5.2e)	The museum has been monitoring and recording Insect Pests for the last 7 months as part of the Pest Partnership Programme. A monitoring and recording system is now in place and an Integrated Pest Management Plan is in the process of being written

We know that all objects coming into the museum should be checked for signs of pest damage, dampness or mould (4.5.2e)	We check all objects coming into the museum for signs of pest damage, dampness or mould (4.5.2e)	Check all objects coming into the museum for signs of pest damage, dampness or mould, and take advice on how to remedy the problems, and keep the object isolated until any problem has been remedied (4.5.2e)	Next Steps: Add a statement to this effect to the '*Artifact Entry procedure*' aspect of the acquisitions policy, and to create Object Condition Check Forms to correctly monitor objects entering and leaving the museum.
The team should have regular advice on collection care activities from an appropriately qualified professional (4.5.2g)	An appropriately qualified professional provides advice on collection care activities in a variety of ways. (4.5.2g)	A conservator or appropriately qualified professional regularly gives advice on collection care activities (4.5.2g)	We regularly seek advice from SWMDP regarding collections care. Next Steps: Add a statement to this effect to the '*Artifact Entry procedure'* aspect of the acquisitions policy, and to create Object Condition Check Forms to correctly monitor objects entering and leaving the museum.
A conservator should carry out or supervise all treatment of objects (4.5.2g)	As often as possible the treatment of objects should be carried out by a conservator and recorded (4.5.2g)	A conservator carries out or supervises all treatment of objects (4.5.2g)	Note: For type 1/2 Independent museums, nonetheless, draw support from SWMLAC when required, and have volunteers with years of experience working on restoring aspects of the collection.
Staff know that they should ask for advice if they are unsure about cleaning an object (4.5.2g)		An appropriately qualified conservator or other appropriately qualified professional has taught staff how to clean collections (4.5.2g)	Online training is available on correct procedures – led by trained professional – also advice is available from SWMLAC.

Actions arising from Collection Care Range Statement.

Task	Strand	Key Responsibility	Date Completed
Identify and create a list of vulnerable objects in the collection, with guidelines on what to look out for e.g., are they vulnerable to insect pests, damp, light etc.	(4.5.2a and 4.5.2f)	HA – with input from the project team	02/12/20
Use the above to create a check list to be used by Conservation/Collections Care Team to record results of regular checks on vulnerable objects.	(4.5.2a and 4.5.2f)	HA	02/12/20
Create a check list to be used by Conservation/Collections Care Team to record results of regular checks on general collections.	(4.5.2a and 4.5.2f)	HA	02/12/20
Create an insect pest monitoring record sheet with identification guide.	(4.5.2e)	HA	07/07/20
Take part in the SW museums Pest Partnership Project in order to gain experience in monitoring insect pests (also free equipment).	(4.5.2e)	HA/GE and potentially some volunteers	12/12/20
Source and purchase insect traps.	(4.5.2e)	HA	Supplied with Pest Partnership project
Adapt the existing acquisitions policy to include a statement along the lines of: 'We complete an Object Condition report for all objects coming into the museum, checking for signs of pest damage, dampness or mould, and take advice on how to remedy the problems, and keep the object isolated until any problem has been remedied'.	(4.5.2e)	IC	
Adapt the section on condition in the existing object entry forms to include a short check list including slightly more specific details on the condition of all newly acquired items and whether they will need conservation work.	(4.5.2e)	IC	
Advertise for volunteers to form a new 'Conservation/Collections Care Team – taking responsibility for conducting regular collection checks, cleaning and environmental monitoring.	(4.5.2e)	GE/CA?	
Consult with volunteers on potential changes to Museum Steward role.	(4.5.2e)	GE	
Create a cleaning rota for the museum, ensuring that regular cleaning tasks are fairly and routinely carried out.	(4.5.2e)	GE/CA	
Amend the Steward Volunteer Role Profile to include some cleaning work.	(4.5.2e)	CA	

Provide training and equipment for cleaning and conservation work.	(4.5.2e)	HA	Equipment has been purchased, but training is not currently possible
Research and create a list of online resources to support conservation/housekeeping volunteers and to form the basis of any future training.	(4.5.2g)	HA	Ongoing, but a fair amount of info has been gathered.

Environment Range Statement.

Level 1	Level 2	Level 3	Notes and Evidence
Check for the effects of incorrect or fluctuating levels of relative humidity, temperature, visible light and ultraviolet radiation and the importance of environmental monitoring (4.5.2b)	Measure levels of relative humidity and temperature at least twice a year. We measure visible light and ultraviolet radiation when changing the displays or the lighting (4.5.2b)	Have a programme to measure relative humidity, temperature and levels of visible light and ultraviolet radiation in displays and stores (4.5.2b)	Basic environmental monitoring and control equipment: 2x Dataloggers to record temperature and RH. Light meter (installed on phone). Note: Insect traps: train a team of volunteers to collect and record data on a regular basis.
		Record, analyse and retain the environmental data collected (4.5.2b)	Monitor and record for light levels. Other environmental data will take the form of data downloaded from dataloggers.
	Equipment used for monitoring should be stored, used and calibrated as the manufacturer recommends (4.5.2b)	Store, use and calibrate all the equipment used for monitoring as the manufacturer recommends (4.5.2b)	Note: Purchase and set up storage system for monitoring/cleaning equipment with a logbook recording use, calibration, and battery charging/replacement.
Be aware of the damaging effects of internal and external pollutants (4.5.2c)	Develop measures to reduce the damaging effects of pollutants (4.5.2c)	Determine the level of control of relative humidity, temperature, visible light, ultraviolet radiation and pollutants that we want to achieve, and take measures to control the environment within these limits (4.5.2c)	Ideal levels for relative humidity, visible and ultraviolet light have been established and are recorded in the Collections Care Plan.

Where possible the closing of windows and doors can protect against airborne pollutants (4.5.2c)	By closing over 50% of windows and doors the collection can be protected against external pollutants (4.5.2c)	All windows and doors can be closed to protect against external pollutants (4.5.2c)	Note: Consider the purchase and installation of screens to be placed over the main entrance doors to Gauge Museum and Blue Anchor museum when locomotives are running.
Objects should be protected from sources of heat, air-conditioning vents and windows (4.5.2c)	At least 50% of objects are protected from sources of heat, air-conditioning vents and windows (4.5.2c)	All objects are protected from sources of heat, air-conditioning vents and windows (4.5.2c)	All the museum objects are stored away from windows and heat sources
Reduce how much objects are exposed to visible light and ultraviolet radiation both in stores and on display (4.5.2c)	In the stores where light-sensitive objects are kept, 50% of the windows are covered with blinds or shutters, and lights are kept turned off except during access (4.5.2c)	In the stores where light-sensitive objects are kept, all the windows are covered with blinds or shutters, and lights are kept turned off except during access (4.5.2c)	There are no windows in our stores and lights are kept turned off except during access.
	Sunlight falls on less than 50% of our light-sensitive objects while on display (4.5.2c)	Sunlight does not fall on any light-sensitive objects while on display. Fluorescent lights are covered with ultra-violet radiation filters (4.5.2c)	All previous lighting has been replaced in the museum. The replacements are appropriately filtered.
Keep vulnerable objects in cupboards and cases to protect them from dust (4.5.2c)	At least 50% of vulnerable objects are in cupboards and cases to protect them from dust (4.5.2c)	All vulnerable objects in cupboards and cases to protect them from dust (4.5.2c)	Not possible in the case of Sleeping Car No. 9038, or other working models such as the signalling equipment.
Buildings in which the collections are housed, including outside stores, should be strong and well-built enough to protect against the elements and should be inspected (4.5.2d)	50% of the buildings in which the collections are housed, including outside stores, are strong and well-built enough to protect against the elements (4.5.2d)	The buildings in which the collections are housed, including outside stores, are strong and well-built enough to protect against the elements (4.5.2d)	The Gauge Museum is strong, well-built and secure against the elements. The Trust has purchased 2 strong, weather-proof storage containers with an electricity supply for the remainder of the collection.
	All buildings are to be inspect regularly (4.5.2d)	Inspect all buildings three times a year and have a programme of action to remedy any faults identified (4.5.2d)	A monitoring and recording system has been developed to facilitate this. Records may be stored in the Collections Care Folder in the Museum Office or electronically on a cloud based IT system.

Actions Arising from Environment Range Statement.

Task	Strand	Key Responsibility	Date Completed
Develop a business case for what can be achieved towards these statements without applying for Phase 2 funding (highlighted in grey)			
Purchase basic environmental monitoring equipment: Datalogger to record temperature and RH. -Light meter Insect traps	(4.5.2b)	HA	10/12/20
Recruit a team of volunteers to take responsibility for using environmental monitoring equipment to collect and record data on the health of the collection – this could be the same team as the collections care team, or a sub-section of it	(4.5.2b)		
Provide basic training for volunteers in the use of environmental monitoring equipment	(4.5.2g)	HA	Not currently possible
Develop a quarterly monitoring program for the museum, setting dates for when data is collected and analysed.	(4.5.2b)	HA	In progress
Create a simple set of record sheets for recording results of environmental monitoring checks to be stored in a central file.	(4.5.2b)	HA	03/12/20
Provide a central storage location for all environmental monitoring equipment and supplies, with a log book to record use, calibration and battery replacement	(4.5.2b)		
Develop measures to reduce the impact of external pollutants on the collection. - Mat at entry of museum - Dust screen over door	(4.5.2c)		Mats have been purchased
All artificial lighting in the museum is now LED with the exception of lighting requiring a heritage level of luminosity.	(4.5.2c)	Project team	
A new storage container purchased and installed for the safekeeping of artifacts.	(4.5.2d)	Project team	
Create a regular schedule for inspecting the goods shed building. The PLC are responsible for the outside of the building as owners. The WSRHT has responsibility for the inside. The	(4.5.2d)	Curator	Note: Prepare an inspection and maintenance plan to

WSRHT requires that the PLC can supply proof that the building is being inspected on a regular basis. https://historicengland.org.uk/advice/technical-advice/buildings/maintenance-plans-for-older-buildings/			provide a record sheet for buildings monitoring.
	(4.5.2d)	HA	10/07/20

Security and Emergency Planning Range Statement.

Level 1	Level 2	Level 3	Notes and evidence
We know that we should have an emergency plan (1.7.1)	There is an informal emergency plan which includes at least two of the following elements: 1) arrangements for staff and visitors. 2) arrangements for collections and buildings. 3) a risk assessment of threats; procedures for staff in the event of an emergency (1.7.1)	The emergency plan includes the following elements: 1) arrangements for staff and visitors. 2) arrangements for collections and buildings. 3) a risk assessment of threats; procedures for staff in the event of an emergency (1.7.1 and 4.6.4)	The emergency plan is currently being drafted and includes all of the required elements.
There is an emergency call-out list for staff.	See the emergency call-out list for staff.		See Emergency Plan.
	We review our emergency plan informally every 5 years (1.7.2)	We review our emergency plan every 5 years, and note the date of the last review (1.7.2)	See Emergency Plan.
Assess the security arrangements for the museum buildings and collections (4.6.2)	Assessment of the security arrangements for the museum buildings and collections completed. (4.6.2)	An expert advises us on the security arrangements for all the museum buildings and collections, including off-site stores, and we act on the advice (4.6.1 and 4.6.2)	

Informal security arrangements for at least one of the following: 1) staff. 2) visitors. 3) collections (4.6.1 and 4.6.4)	Security arrangements for at least two of the following: 1) staff. 2) visitors. 3) collections (4.6.1 and 4.6.4)	Further measures such as: 1) identifying particularly vulnerable collections. 2) installing physical protection and alarm systems. 3) staff invigilation. 4) inventory checking (4.6.3)	

Actions arising from Security and Emergency Planning Range Statement.

Task	Strand	Key Responsibility	Date Completed
Create a building plan showing location of emergency exits, stopcocks, fire extinguishers and first aid boxes	(1.7.1)	GE	In progress
Create an emergency call out list for staff and file with Emergency plans	(1.7.1)	Project Team	In progress
Write an Emergency Plan for the Museum	(1.7.1 and 4.6.4)	HA/GE	In progress
Circulate Emergency plan to all staff and volunteers and provide training where necessary.	(1.7.1 and 4.6.4)		

Documentation Range Statement.

Level 1	Level 2	Level 3	Notes and Evidence
Have documentation procedures that can: 1) locate and identify the objects. 2) help us to audit the collection. 3) prove that the museum owns the objects. 4) make it possible to interpret objects and collections (4.2.2)	Develop documentation procedures which will mean that we can locate and identify the objects, help us to audit the collection, prove that the museum owns the objects, and make it possible to interpret objects and collections (4.2.2)		Majority of the collection was recorded on an Access Database which has now been copied onto Modes, a Spectrum 5 record keeping system.
Documentation procedures should be consistent (4.2.3)	We attempt to follow consistent documentation procedures (4.2.3)	We have a Documentation Procedural Manual, which we review regularly (4.2.3)	To do: Write a Documentation Procedural Manual for the Gauge Museum.
Ensure one of SPECTRUM 5 Primary Procedures is followed (4.3.2)	Follow at least 3 of SPECTRUM 5 Primary Procedures, including marking and/or labelling objects with their accession numbers (4.3.2)	Follow SPECTRUM 5 Primary Procedures (4.3.2)	
Deal with the documentation backlog (4.4.2 and 4.4.3)	An informal, unwritten plan to deal with our documentation backlog is in place (4.4.2 and 4.4.3)	Documentation Plan which sets out how to deal with it, and the timescale for carrying the action forward (4.4.2 and 4.4.3)	
		For those parts of the collection for which we do not have accession and location records, we are compiling an inventory (4.4.3)	This is currently in progress
		Once we have completed an inventory, we are working to compare it with existing documentation records. This will help us to find out whether we can	This will happen once the MODES software is updated with existing collection information

		match these records with any of the unnumbered objects (4.4.4)	
		We are working to upgrade our records which relate to the Primary Procedures to the full SPECTRUM 5 standard (4.4.5)	Now MODES is in place and the four previously mentioned policies and accompanying procedures, will be covered.
We know that records should be kept of conservation work carried out on objects (4.5.3)	When objects have undergone conservation treatment, we record this on their catalogue record (4.5.3)		
	Keep written records of conservation work carried out on objects (4.5.3)	Objects undergoing conservation treatment, are logged in the Conservation Treatment Records at SPECTRUM 5 standards (4.5.3)	This is part of the MODES package and will be part of our collections management procedure from now on.

Actions Arising from Documentation Range Statement.

Task	Strand	Key Responsibility	Date Completed
Write a Documentation Procedural Manual for the Gauge Museum – include a clear date for review.	(4.2.3)	IC	
Complete inventory of collections and use this to identify and record undocumented objects	(4.4.3) and (4.4.4)		
Install MODES software and transfer existing data over	(4.4.4)		
Ensure that appropriate training/support is in place for designated documentation officers/volunteers.			
Write a Collections Development policy	(4.3.2)	IC	
Write a Collections Information Policy	(4.3.2)	IC	
Write a Collections Access Policy	(4.3.2)	IC	
Write a Collections Care Policy	(4.3.2)	HA	02/12/20
Create a documentation action plan that prioritises key objects in the collection, lists people involved in the documentation process and includes a timescale for completion.	(4.4.2 and 4.4.3)	IC	
Develop a procedure for prioritising, authorising and recording any future conservation work on objects within the collection	(4.5.3)		
Ensure that future conservation work is recorded onto the MODES database.	(4.5.3)		

Appendix A: Monitoring Form - Vulnerable Object.

Object	Location:	Monitor for:	Object Condition/Concerns:	Recorded by:	Date:	Actions required:
9038 Sleeping Car	Museum Main Deck (Open display)	Damp Signs of rust Insect pests Light damage Damage caused by visitors				
King Henry II nameplate	South end wall above stairs	Signs of rust security of fastenings Also monitor security (Theft, vandalism)				
Broad gauge track gauge, Bristol & Exeter railway	Main wall display	Signs of rust Damage to paintwork caused through handling. Also monitor security and fixtures				
Bristol & Exeter Railway milepost	Main wall display	Signs of rust Damage to paintwork Damage caused by visitors. Also monitor security				

Appendix A: Monitoring Form - Vulnerable Object (Continued).

Object	Location:	Monitor for:	Object Condition/Concerns:	Recorded by:	Date:	Actions required:
Length of West Somerset Mineral Railway cast iron rail	In store	Signs of rust/ corrosion Also monitor security				
GWR Fire Pump	Downstairs Open display	Damp Insect Pests Degradation of paintwork loss of accessories Vulnerable to fire damage				
BR Totem signs for Taunton and Minehead	Main wall display	Rust/corrosion Degradation of paintwork damage by visitors/careless handling Also monitor security				
Box of documents relating to first five years of WSR as a preserved railway	Archive store	Damp Insect Pests Light damage Ideally requires temperature and humidity-controlled conditions. Vulnerable to fire damage				
Braille measuring steel tape for use in tunnels	Storeroom under the stairs	Rust/Corrosion Also monitor security				

Appendix A: Monitoring Form - Vulnerable Object (Continued)

Object	Location:	Object	Object Condition/Concerns:	Recorded by:	Date:	Actions required:
GWR Hallade portable track recording machine	Office	Dust. Damp. Light damage. Insect pests. Delicate scientific. instrument. Needs secure storage or display.				

Appendix B: **Monitoring Form - Object**

Object	Location	Monitor for:	Object/area condition/concerns	Recorded by	Date	Actions required

Appendix C: Monitoring Form - Object Condition Report, Entry and Exit Forms (for Artifact Entry and Exit)

From: West Somerset Railway Heritage Trust Museum **Date: ……..**

To: …….. **Date: ……**

Catalogue Number:

Location:

Title (If Any):

Description:

Date Recorded or Date of Production:

Handling Notes:

Method of Transportation:

Condition of Object:

Conservation Requirements (If Any):

On Arrival.

Signed For: ……. Date: …….

On Return.

Signed For: ……. Date: …….

Appendix D: Environmental Monitoring Form – Light Monitoring.

Check carried out by: ……. Date: ……..

Zone/individual object	Visible light levels	UV light levels	Comments/Actions required
Main Deck Display Area			
Signal Box			
Sleeping Carriage			
Lower Deck Display Area			
Upper Deck			
Museum Office			
Museum Store 1			
Museum Store 2			

Appendix D: Environmental Monitoring Form – Temperature.

Check carried out by: ……. Date: …….

Zone/individual object	Temperature	Relative Humidity	Comments/Actions required
Main Deck Display Area			
Signal Box			
Sleeping Carriage			
Lower Deck Display Area			
Upper Deck			
Museum Office			
Museum Store 1			
Museum Store 2			

Collections Care and Conservation Insect Pest Monitoring – Record sheet

<u>Appendix E:</u> Monitoring Form – Insect Pest.

Check carried out by: ……. Date: …….

Trap No	Location/Room	Please record number of each insect found in the trap using the grid below:																												
		Beetles															**Moths**						**Other**							
		Varied Carpet Beetle	Two Spot Carpet Beetle	Brown Carpet Beetle	Hide or leather Beetle	Larder Beetle	Biscuit Beetle	Golden Spider Beetle	Australia Spider Beetle	Shiny Spider Beetle	Plaster Beetle	Fungus beetle	Furniture Beetle (woodworm)	Death Watch Beetle	Powder Post Beetle	Wood Boring Weevil	Webbing Clothes Moth	Case Bearing Clothes Moth	Brown House Moth	Pale Backed Clothes Moth	White Shouldered House Moth	Indian Meal Moth	Booklouse	Woodlouse	Silverfish	Grey Silverfish	Firebrat	Woodlouse Spider	Other Spiders	Other insects
1																														
2																														
3																														
4																														
5																														
6																														
7																														
8																														
Notes:																														

Key: A = Adult L = Larvae C = Case

Appendix F: Housekeeping Guidance Notes.

Housekeeping is an important part of looking after your collection and an element of the Accreditation Standards. It includes cleaning, pest control and air quality. This guideline looks at cleaning – others are available on pests and the museum environment. The most important thing you can do for the collection is **observe and act** – keep looking for signs of dirt, damp, pests or unexpected changes. Note down what you see and make sure action is taken. **Be aware of hazards to your health and safety and the risks to the objects**. **Wear gloves** when cleaning and **a face mask** if working in very dusty areas or with mould.

1. Have a written **Housekeeping Plan** with details of the methods and materials used, which everyone has read and understood. Regularly review the Housekeeping Plan and ask the people involved for their ideas to improve it.

2. Keep a **Housekeeping Log** – this can be a notebook or sheets which people tick, sign and date for different tasks with space for comments. An Excel spreadsheet template is available which can be easily adapted to suit your museum.

3. **Try to prevent dirt and pests coming into the museum**. Keep doors and windows closed as much as possible. Use mats to trap dirt at the entrance. Open windows or vents should have insect-proof mesh screens. Encourage visitors and volunteers to keep coats and umbrellas away from the objects. Quarantine all new items until they have been checked.

4. **Do not allow food and drink** to be kept, consumed, or disposed of near objects. Keep food in plastic or metal containers or in a fridge. Open or empty food packets will attract pests. Empty rubbish bins frequently and especially when leaving the museum closed for more than a day.

5. **Keep cleaning products to a minimum** – you will save money and avoid the risk of damage to the objects. Do not use sprays in the museum – the fine aerosol droplets can get inside frames and cases and cause long-term damage. If an essential cleaning product is only available as a spray, spray a small amount into a loose pad of cleaning cloth or paper towel and then use that.

6. **Cleaning should be undertaken regularly**, as often as the building requires. If it is a very dusty building, shelves and cupboard tops may need cleaning every week. New buildings with sealed surfaces may only need dust removing once a year. Do not clean items from the collection unless advised by a conservator. Further help is detailed in *the Guidelines on Handling and Cleaning Objects*.

7. **Vacuum floors weekly** when the museum is open, at least monthly when it is closed. If there are unprotected objects (e.g. furniture legs) or delicate case fronts at floor level pad the front and sides of the vacuum cleaner with polythene foam strips, held on with double-sided carpet tape, taking care not to block air vents or moving parts. Choose a Vacuum cleaner with a HEPA filter as this will remove even tiny particles and mould spores. **Smooth floors can be wiped down with a damp cloth,** handheld or fitted on a plastic holder, but avoid washing floors or using traditional mops unless you vacuum the floor dry immediately afterwards.

Washing a floor adds a huge amount of moisture to the air which increases the risk of corrosion, mould and pests and causes organic objects to expand and then contract as they dry out. This can cause veneers to lift off, joints to fail and splits or cracks to form.

8. **Wipe windows and glass fronts of cases with a microfibre cloth**, dry or slightly dampened with plain water. Do not wipe framed pictures as this can cause static to build up inside which can cause tiny flakes of the image to cling to the glass. Dust on picture glass can be gently brushed off with a soft brush into a vacuum cleaner nozzle (see separate Guidelines). Never use a wet cloth or spray on framed pictures. Many liquid window cleaners contain acid (e.g. vinegar) or alkali (e.g. ammonia) which can cause objects to deteriorate rapidly.

9. **Wipe down open shelves, windowsills and tops of cabinets** when they appear dusty. Use microfibre cloths (wet or dry as before) to trap the dust.

10. **Do not use feather dusters or torn rags** near objects as loose fibres may pull fragments off objects. Feather dusters can be used to sweep cobwebs from high ceilings, but take care near decorative mouldings, light fittings and frames. Pad the ferrule or the hard end of brushes with polythene foam or layers of masking tape so that they cannot mark or dent objects accidentally. Keep cleaning tools clean themselves. Empty vacuum bags or canisters after each cleaning session and dispose of the contents outside the museum.

11. **Clean inside cases while they are empty** between exhibitions. Wipe all surfaces with a microfibre cloth or use a soft brush and vacuum nozzle. Take special care to clean angles, joins and tracks (e.g., for sliding doors or glass). If repainting cases, display areas or storage rooms, use only low VOC (volatile organic component) paints and leave the area open for several days (preferably for several weeks) until the paint is thoroughly dry and there is no detectable odour, before putting objects back. Never put an object directly onto a painted surface.

12. **Deep clean the stores annually** – wipe down all shelves and tops of cupboards, walls, and ceilings. A radiator brush or microfibre cleaner can be used to clean behind cupboards. Move boxes off each shelf in turn and wipe down the outside of each before replacing it in the correct location on the cleaned shelf. Take care not to damage labels.

13. **Do not leave large items uncovered in the stores**: Tyvek fabric, light unbleached cotton or acid-free tissue can be used to make covers. Brush the dust off the covers on larger objects into a vacuum nozzle. Make sure you know what the object is like underneath so that it is not damaged. If an object is too delicate for this, it should be protected under a rigid cover.

14. **Use polishes sparingly.** If woodwork is kept clean it seldom needs more polish applied. Avoid spray polishes or waxes containing silicon oils. Beeswax and other natural products deteriorate and discolour as they age. The best polish is a simple microcrystalline wax softened with a small amount of white spirit, such as Renaissance wax. Once a year, if necessary, apply a very small amount on a clean, soft cloth to modern woodwork, then polish off with a second soft, clean cloth. Older woodwork (e.g. furniture in the collection) should not be routinely polished. Do not apply polishes to damaged, powdery or painted surfaces unless advised by a conservator.

15. Most **metal fittings,** such as handles and hinges, only need to be wiped clean with a microfibre cloth. Metal cleaners and "polishes" use abrasives or chemical agents to grind away or dissolve corrosion, removing some of the metal each time they are used. The acids or alkalis they contain cause pitting and stress cracking in the metal. Modern items which need a bright finish (e.g., modern brass plaques) or which have become corroded can be polished using a fine, chemical-free abrasive such as Pre-Lim, applied with a soft cloth or soft bristle brush using small, circular motions, allowed to dry for a few minutes and then thoroughly cleaned off using a clean, soft cloth and brush. Do not clean older metal items unless advised by a conservator.

Accidents:

Be careful when working near objects and gentle when touching them. Be prepared for accidents – make sure everyone knows the First Aid procedure in the museum for when people get hurt and the Accident procedure if objects are found to be damaged. Have an accident kit with a pencil and a notebook or report forms, acid-free tissue, some small zip-lock polythene bags, and a pen which will write permanently on plastic. If possible, take a photograph before any fragments are moved. If you were involved in the accident, protect the area, and ask other people to help, rather than trying to pick up the pieces yourself.

Suppliers:

These are suggestions, not recommendations:

a) Mats for entrances: approx. £35 for 75 x 100 cm Wash in an old pillow slip on a cool setting. Do not use fabric conditioner http://www.dirttrapper.co.uk/ or http://www.dirttrappermats.co.uk/dirt-trapper.html

b) Mesh and insect screens: can be temporary frames which you place in the window while it's open or a roller blind. http://www.flyscreensuk.co.uk/ £5.99 per metre (1.2m wide) coated fibreglass mesh, http://www.chainscreens.co.uk/mesh-screens.php roller blind screens.

c) Renaissance wax and Pre-Lim: Picreator Enterprises http://www.picreator.co.uk/

d) Microfibre cloths, floor cleaners, radiator brushes, gloves, dust masks: hardware stores, poundshops, supermarkets, chemists

e) Polythene foam (Plastazote or Jiffy foam): use scraps from museum object packing supplies, local packaging firms or ask the CDO.

f) Zip-lock bags: Isca Bags www.iscabags.co.uk, Bag'n'Box man www.bagnboxman.co.uk, local packaging firms

Useful Links:

a) US National Parks: museum housekeeping http://www.nps.gov/museum/publications/MHI/CHAP13.pdf

b) Minnesota Historical Society: historic housekeeping http://www.mnhs.org/preserve/conservation/reports/manual-0102.pdf

c) Australian Community Museums Housekeeping Schedule http://www.history.sa.gov.au/chu/downloads/CMP_help_sheets/Housekeeping%20Schedule.pdf

Appendix G: Support Notes on Conducting a Deep Clean.

1) You need lots of PPE for everyone, especially FFP3 dust masks if the place has a lot of loose dust. People may wish to wear eye protection if it is very dusty.

2) A vacuum with a HEPA filter. Doesn't have to be fancy, but you want one with a hose and a nozzle. A bit of net or tights to put over the nozzle and hold in place with a rubber band (to stop tiny bits getting sucked in and lost. I prefer to use a bagless vacuum, but as long as you empty the bag after each session and don't leave it partly full for weeks (so pests can crawl back out) it'll be fine.

3) Microfibre cloths (These can be washed in a washing machine, but never use fabric conditioner – it blocks the gaps in the fibres and prevents them working).

4) Soft brushes (One or two very soft ones for delicate surfaces, ordinary decorator's painting brushes for more robust surfaces) Wrap the metal ferrule of the brush with several thickness of tape such as masking tape, to prevent accidental scratching of surfaces.

5) Bags for waste disposal.

6) A box with some small bags or boxes, labels, and a waterproof, fadeproof pen or pencil – to put small fragments or misplaced items in so they can later be identified and hopefully relocated. Cotton tape and scissors are also useful. Cotton tape (I can supply this at cost) is useful for securing loose parts of objects.

7) If you have delicate surfaces such as gilded frames, which have gathered dust, a puffer-blower such as https://www.ebay.co.uk/p/23027399980?iid=383643652309 is ideal.

8) If you have large areas of upholstery or carpet, a square of plastic mesh about 15cm/ 6 inches square with the edges protected with tape is useful.

9) Agree the procedures and priorities with the team. Remember that deep cleaning is intended to clean the area, providing a good environment for the objects. It is not a way of cleaning the collection, apart from removing light surface dust. If objects need cleaning, please let me know and we can discuss what is suitable for different materials and objects.

10) Keep good records so everyone will know which areas have been cleaned and nothing gets overlooked. A logbook, daily record or whiteboard can be helpful to record at the end of a shift, especially if a different team will take the next shift.

11) Make sure you plan what you will do if:

a) Someone gets hurt (cuts, scrapes, bruises, falls etc., write a Risk Assessment for the work in the area).
b) An object gets damaged or is discovered to be damaged (photograph, condition form to record damage, reporting procedure).
c) You discover a live pest infestation (acid-free tissue, polythene and packing tape to isolate the object, pest traps to put in the area – don't forget to contact me promptly for further advice).

12) Wherever possible, clean from the top down. If the surface is stable, brush off loose dust into the protected nozzle of the vacuum. Smooth surfaces can then be wiped with a clean microfibre cloth.

13) Move boxes and smaller objects off shelving so that it can be cleaned, taking care to replace them in the correct location. Wipe boxes with a microfibre cloth. If objects are robust enough, they can be cleaned with the brush-vacuum to remove loose dust.

14) Do not attempt to clean gilded surfaces with a cloth or brush, just use the puffer-blower to gently puff any loose dust off them into the vacuum nozzle.

15) Move larger objects if possible, or at least raise them on chocks so that you can check the area behind and beneath them.

16) Large areas of upholstery or carpet can be gently vacuumed by placing the plastic mesh over an area and holding it securely as the vacuum nozzle is passed over it. Lift the mesh off, don't slide it, and place over the next area.

17) Glass such as windows can be wiped with a clean microfibre cloth that has been lightly dampened with clean water. Do not use damp cloths on glazed paintings. Avoid window cleaning fluids which often contain acids and alkalis and may cause long term problems for objects in the area.

18) Do not use cleaning or polishing sprays.

19) If any plain wood or metal surfaces need a light protecting polish, Renaissance wax can be applied sparingly and buffed to a smooth shine. I can supply this at cost. Use a cloth or brush to apply the wax (warm it or add a little white spirit to soften it if necessary) allow to harden and buff with a lint-free cloth (not microfibre).

20) If you suspect pests have been in an area you can spray Constrain (a permethrin-based insecticide available from http://historyonics.com/order.htm) onto a cloth and wipe on walls, sills, window frames, shelves and the junction between the wall and the floor. It is a contact insecticide which lasts about 4 – 6 weeks so best applied in the early spring and summer when pests are more likely to be active.

21) Delicate surfaces should be protected from dust by placing them in a box made from acid-free card or polythene or polypropylene. If a plastic box is used, make sure there is plenty of acid-free tissue in the box to absorb any excess moisture and prevent condensation in cold conditions. If they are too big to place in a box (e.g., paintings, gilded frames) they can be covered with Tyvek fabric – a breathable form of polythene (I can supply this at cost in 1.5m or 3m widths) or several sheets of acid-free tissue with ordinary polythene over the top.

Appendix H: Environmental Monitoring - Basic Information.

Rationale:

1) **What do we mean by the 'Museum Environment'?** These are the conditions in which museum collections are displayed/stored/used. They include temperature, relative humidity, light, pollution and pests.

2) **Why monitor the environment?** Unsuitable environmental conditions can be damaging to museum objects and costly to the museum. By monitoring environmental conditions, problems can be identified and addressed through a variety of environmental controls. Environmental monitoring is also now a requirement of the Accreditation Scheme for Museums in the United Kingdom under section 4.5 "Actions to minimise the risk of damage to and deterioration of the collection".

3) **How can environmental conditions affect your collections:**

   a) **Relative Humidity (RH)** If RH around certain objects in the collection is low, organic objects e.g., wood lose moisture, can become dry and brittle and can crack. If the surrounding RH is higher than the objects absorb moisture and can swell and become damp. Metals can corrode, and mould, mildew and insect pests can become a problem. RH also aggravates fading and other decay processes. Fluctuating RH can cause objects to crack, split and warp.
   b) **Temperature** This directly affects RH and so can aggravate damage by that means. An increase in temperature also speeds up the rate of decay of objects. In some cases, high temperatures can soften materials and low temperatures can cause them to become brittle.
   c) **Light** This can cause fading, bleaching, discolouration, and brittleness in some materials and physically weaken others. The two types of light which should be controlled in museums are Ultra Violet (UV) and visible.
   d) **Pests** Animal or insect pests can feed directly on objects or on the dirt around them. They cause damage by eating the objects themselves or through staining caused by their secretions. Moulds and fungi can also stain and etch into the surface of objects. Some pests can pose a health risk to people.
   e) **Pollution** Gaseous pollutants, including organic acids, sulphur dioxide, nitrogen oxides and ozone, can cause bleaching, discolouration and weakening of a variety of materials. Particulate pollution (dust) can become embedded in the object's surface, cause abrasion and wear, attract moisture, act as a food source for pests and be visually disfiguring. Liquids such as sweat can also cause problems such as dirt, corrosion and chemical weakening of materials.

Appendix I: **Insect Pest Identification Sheet.**


Pest beetles
Death watch beetle
Wood wasp
Brown carpet beetle or Vodka beetle
Two-spot carpet beetle
Larder beetle
Cigarette beetle
Furniture beetle/ woodworm
Biscuit beetle or drugstore beetle
Australian spider beetle
Golden spider beetle
Guernsey carpet beetle
Varied carpet beetle
Non-pest beetles
Mealworm beetle
Black ground beetles
Harlequin ladybird
Fungus beetles and plaster beetles

Appendix J: Guidelines for Object Handling.

Rationale:

1) Preventive conservation starts with careful handling. Proper handling is a matter of common sense and relies on understanding the weak areas on an object and thinking through all the risks associated with lifting and moving an object. With careful thought and preparation and a respectful attitude objects, accidents and damage can be avoided.

   These guidelines should be shared with all paid staff and volunteers when they start working at the museum.

2) General Rules:

   a) Ensure that people who will handle objects are properly trained.
   b) Do not handle an object unless it is necessary.
   c) Stop and think before handling an object. Look at it carefully: take note of any structural weak points and handle accordingly.
   d) Remove any lids or other loose parts before moving.
   e) Plan the route and clear the passage before moving an object.
   f) Prepare the space the object is being moved to before handling the object.
   g) Do not hurry.
   h) Use both hands to support the object.
   i) Do not wear dangling jewellery, loose sleeves, or belts with buckles, which may scratch the object. Avoid having pens etc in shirt pockets when handling objects.

3) Generally, gloves should be worn when handling objects. Cotton gloves work well in many circumstances, however, note must be taken of the following:

   a) They are more slippery than nitrile gloves, especially when handling slick or heavy items.
   b) They can snag more easily on objects with projecting or friable parts such as baskets.
   c) Hand oils will eventually permeate through the weave of the glove if worn for a prolonged period.
   d) If gloves are not worn, for instance when handling ceramics or glass, then make sure that your hands are clean and dry.
   e) Always wear gloves when handling metals. Avoid wearing cotton gloves with plastic dots on the fingers as these can leave residue that causes localised corrosion.

f) Slippery objects such as ceramics or glass, may be handled with bare clean, dry hands, unless their surface is particularly sensitive to fingerprints. If you wish to wear gloves, choose nitrile for a maximum grip.

4) When gloves are not worn when handling objects:

a) Never touch the surface of an object with a friable surface (e.g., pastels, flaking paint surfaces etc.)
b) Do not smoke, eat or drink while working with museum objects.
c) Do not use pens or sharp implements around objects.
d) Do not transfer an object directly to another person. Place the object on a surface and allow the person to lift the object from that surface.
e) Do not move or carry more than one object at a time.
f) When using a ladder or steps tool always have another person present. If possible do not descend the ladder/step stool while holding the object. It is preferable to hand the object down to the person assisting before descending (in this case it is ok to transfer the object to another person directly).
g) Do not attempt to move large or heavy objects on your own.
h) Report and record any damage that occurs during handling.
i) If a breakage or damage occurs, do not panic. Retain all the pieces, however small in a labelled bag with your name and date and immediately advise any of your supervisors.

5) Areas of Vulnerability:

a) Museum objects should be handled with particular care; in many cases they are irreplaceable. Areas of vulnerability on museum objects are sometime counter-intuitive, as they are often the means, that under normal circumstances, would be the most obvious way of lifting that object, such as the handle on a suitcase.
b) When handling objects, you need to be aware of this and avoid using the more obvious means of lifting. Areas of vulnerability include:

i) Handles which may be loose or previously repaired.
ii) Protrusions which can catch or be knocked.
iii) Areas of previous repair.
iv) Top or crest rail of a chair.
v) Soft/powdery surfaces.
vi) Loose components such as drawers, lids, doors, etc.
vii) Unwieldy shapes.
viii) Large, floppy items.
ix) Heavy items.
x) Brittle paper.

xi) Ornate or gilded frames.
xii) Paintings which do not have backing boards.
xiii) Unframed paintings.
xiv) Metal surfaces which are sensitive to tarnishing.
xv) Sensitive surfaces such as photographs.

c) Always lift and support the body of the object. Do not lift objects by protruding or secondary parts such as handles, straps or lids. Do not lift furniture by arms or backs, paintings by frames or hanging hardware, or ceramics by handles. Carry textiles fully supported by both arms; do not lift them by the edges. To lift or move paper objects, use both hands. Hold diagonal corners of the sheet or use an acid free folder to support the piece during movement. Objects considered unstable or particularly fragile should only be moved with support.

Equipment and Materials.

1) Using some of the following equipment will help you when handling objects:

a) Boards for supporting flat, flexible objects such as paper and textiles.
b) Trays – shallow plastic trays to place small items in.
c) Trolleys, dollies, and pallet lifters for heavy objects.
d) Gloves – cotton or nitrile. Disposable nitrile gloves are preferable to use with slippery surface such as glass, ceramics, and metal as they provide more grip and fit snugly.
e) Ziplock bags – for smaller, durable items.
f) Small cushions/tubes filled with bean bag beans – used as cushioning between items in trays.
g) Foam blocks – used as cushioning or to lift framed works off the floor if stored temporarily against a wall.
h) Felt covered blocks – lift framed works off the floor if stored temporarily against a wall.
i) Acid free tissue – used for padding or separating items.
j) Cotton tape – used to tie loose areas during a move.

2) Moving Objects, make sure you plan carefully in advance of moving any objects within the museum:

a) Inspect the object for areas of weakness.
b) Remove jewellery- rings can scratch, necklaces can swing around.
c) Look at the space you moving to – is it clean and clear? Will the object fit through doors?
d) Have you got a clear pathway to the new location – Plan your route carefully, checking for uneven floors and any trip hazards.
e) What is the safest way to lift the object?

f) How many people do you need?
g) Do you need a trolley?
h) Do you need a tray?
i) Have you got padding between objects?

3) If you are moving an object over distance, then you need to ensure the object's safety by carefully packing/padding it for transport. When unpacking, never discard packing materials without first checking them carefully for associated materials (flakes, lids, labels etc.)

4) If leaving an object unattended overnight or during a weekend, make sure that the object number is associated with it, for instance by writing it on a paper tag. Cover the object with a layer of protective material (e.g., plastic sheeting, cloth, or both) then place an 'object below' card on top.

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0.1	November 2021	First Issue of Document.
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0.3	January 2023	With WSRHT Trustees for Approval. Next Revision January 2026.