Collections Budget Report

A Comprehensive Study of the Cost of Collections Care

OREGON HERITAGE COMMISSION

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Introduction

This document is intended to serve as a guide for the cost of collections care for museums and other cultural institutions. The utilization of this report can aid in applying for grants, approaching your board for further funding and knowing what kind of supplies are necessary for a functioning collections care department. The expenses listed, although extensive, merely serve as a strong example of material needs. It is important to take stock of your institution's specific collection and storage space to identify where your greatest needs exist.

The Oregon Heritage Commission would like to thank the Oregon Cultural Trust for their support in the production of this report.

How to Use this Document

This document will cover several categories of collections care needs. Each category will list line items of specific supplies suggested to improve the quality of your collections care. For each supply item recommended, three financial options will be provided, a high, medium and low. In cases where only one appropriate or acceptable quality item was available, then only one option is listed in the budget table. At the end of each category a total will be given and a grand total at the end of the document. There is no reason to confine your institution to one financial column throughout the entire budget table. It is highly advisable to choose a higher quality/cost item where your museum is most vulnerable and medium to low cost item in areas that are of little relevance or risk at your institution.

Example: Your institution is in a very vulnerable area for natural disasters and would like a high end disaster preparedness option. Your same institution has had little to no problems with museum pests and would like a low cost option for consistent monitoring purposes.

Under the disaster response kit category, choose between the teal, Oregon Heritage Commission recommended kit, or the yellow National Parks Service expanded kit.

Collections Budget Table

Description	High	Medium	Low
STAFF			
Collections Manager 40 Hour Work Week Sample Cataloging-15hrs Rehousing Objects-6hrs Intern Management-8 Exhibit Research & Development-3hrs Staff Meetings-2hrs Object Paperwork Creation & Reconciliation-6hrs	\$51950 (75 th Percentile)	\$42,201 (Median)	\$30,900 (10 th Percentile)
Assistant Collections Manager	\$42250 (75 th Percentile)	\$37613 (Median)	\$28,420(10 th Percentile)
Archivist 37 Hour Work Week Sample Archival Appraisal & Arrangement-20hrs Archives Paperwork-5hrs Archives Rehousing-5hrs Exhibits & Programming-2hrs Professional Development-2hrs Supply Inventory-1hr Meetings-2hrs	\$49,879 (75 th Percentile)	\$42,833 (Median)	\$30,300 (10 th Percentile)
Trained Volunteer-Value of a volunteer ¹	\$24.14/hr.	\$24.14/hr.	\$24.14/hr.
TOTAL	\$144,079	\$122,647	\$89,620

 $^{^{\}rm 1}$ Determined by "Independent Sector"

Description	High	Medium	Low
Collections Management System			
Past Perfect ²	\$870	\$870	\$870
Software IT Support ³	\$345	\$345	\$345
TOTAL	\$1215	\$1215	\$1215
Security-(Burglary Alarm)	\$635.88/year	\$539.88/year	\$419.88/year
Insurance	Refer to the "Explanation of Expenses" page as well as the "Works Consulted" page for further information.		
Data Backup			
Hard Drive			
WD My Book Duo 16TB External Hard Drive	\$499.99		
WD My Book 8TB External Hard Drive		\$209.99	
Seagate Backup Plus Desktop-5TB Hard Drive			\$139.99
Server			
Dell Tower Server for Small Businesses	\$1349	\$679	\$449
TOTAL	\$3699.87	\$2642.88	\$2223.87

 $^{^2}$ The collections management software is a one-time cost. The only time the software will incur additional cost is when an upgrade is necessary, typically upgrades are several years apart. 3 The cost of software IT support is an additional service with an annual fee. The price above reflects the annual fee.

Description	High		Medium	Low
Climate Control				
Climate Control Rate Per Square Foot				
Refer to the "Explanation of Expenses" page as well a	s the "Source	es" page for f	urther information.	
Climate Monitoring-Maxant Compact Hygrothermograph	\$1,425			
Climate Monitoring-LASCAR Electronics WIFI Data Logger			\$209	
Climate Monitoring-Arten Fahrenheit Thermohygrometer				\$82.49
Humidity Control-Artsorb Silica Full Cassette	\$170.69			
Humidity Control-Pre-Conditioned Humidity Control Cartridge			\$34.25	
Humidity Control-Aluminum Desiccant Canister				\$16.60
Light Monitoring-Hanwell Light Data Logger Kit	\$1,065			
Light Monitoring-Visible Light Meter			\$280.79	
Light Monitoring-Testo Pocket Light Meter				\$146
TOTAL	\$2,660.69	•	\$524.04	\$245.09
PEST MANAGEMENT				
Integrated Pest management through a service provide	er			
Pest management for up to 2000 sq. ft.	\$2280/year 1x monthly service	\$2640/year 2x monthly service		

Description	High	Medium	Low
Pest management for 2000-5000 sq. ft.		\$1920/year \$2280/ye 1x monthly 2x month service service	
Pest management for 5000+ sq. ft.			\$780/year \$1920 1x 2x monthly monthly service service
Pest Monitoring Kit	\$135.99	\$135.99	\$135.99
Insect Pests of Museums Identification Poster	\$21.49	\$21.49	\$21.49
Clothes Moth Trap Kit	\$132.99	\$132.99	\$132.99
Freezer-Cascade Scientific-Nuaire Ultralow Freezer-25.7cu.ft.	\$12,000		
Avantco Chest Freezer-18 cu. Ft.		\$599	
Avantco Chest Freezer-7.4cu.ft.			\$299
TOTALS⁴	\$14,570.47	\$2,809.47	\$1,369.47
STORAGE SPACE			
Storage Space (Rate per sq. Foot)			
Refer to the "Explanation of Expenses" page as well as	s the "Sources" page fo	r further information.	
Storage and Housekeeping Supplies			
Plain, Cotton Rags	\$19.98/8LBS	\$11.98/4LBS	\$10.41/1LB

 $^{^4}$ Totals for the pest management category include the once monthly pest management through a service provider.

Description	High	Medium	Low
Soft, Camel Hair Brush	\$23.95	\$23.95	\$23.95
Micro Attachments for vacuum	\$15.98	\$15.98	\$15.98
Renaissance Wax	\$14.83	\$14.83	\$14.83
Cotton Swabs	\$17.00/1000ct	\$17.00/1000ct	\$17.00/1000ct
Murphy's Oil Soap	\$21.19/GAL	\$9.49	\$9.49
Ammonia	\$8.81/2QT	\$8.81/2QT	\$8.81/2QT
Butcher's Wax	\$32.95/1LB	\$32.95/1LB	\$32.95/1LB
16" PVA Mop with Wringers	\$47.29		
11" PVA Mop with Wringers		\$38.85	\$38.85
Orvus Paste	\$32.50/7.5LB	\$13.95/2LB	\$9.75/1LB
Distilled Water-Technical Grade	\$69.99/4Gal	\$21.99/64oz	\$21.99/32oz
Isopropyl Alcohol	\$65.95/4Gal	\$28.75/1Gal	\$4.61/32oz
TOTAL	\$370.42	\$238.53	\$208.62

Description	High	Medium	Low
Compiled Costs ⁵			
One Box of Archival Materials			
Acid free record storage box	\$16.15	\$16.15	\$16.15
Archival Reinforced Full 1" Tab Letter Size File Folders (100pk)	\$36.60	\$36.60	\$36.60
File Folder Supports 6pk	\$11.65	\$11.65	\$11.65
50 Photos			
8x10 photo sleeves, 3mil, archival polyester	\$48.85(50pk)	\$48.85(50pk)	\$48.85(50pk)
4x6 photo sleeves, 3mil, archival polyester	\$18.70(50pk)	\$18.70(50pk)	\$18.70(50pk)
3x5 photo sleeves, 3mil, archival polyester	\$15.65(50pk)	\$15.65(50pk)	\$15.65(50pk)
Archival Reinforced Full 1" Tab Letter Size File Folders(100pk)	\$36.60	\$36.60	\$36.60
10 Quilts			
Free Standing Textile Roll Storage Rack	\$1789		
3" Diameter Roll Storage Tubes (10pack)	\$252.89		
Textile Box-38"x24"x6"-10 Boxes		\$442.50	
Textile Box-30"x42"x7.25"-5 Boxes/2 Quilts per Box			\$272.00
Unbuffered Acid Free Tissue Paper Roll-30"x1000'	\$216.35		
Unbuffered Acid Free Tissue Paper-30"x40"-100pack		\$238.80/2 packs of 100	\$238.80/2 packs of 100

 $^{^{5}}$ Compiled costs refers to the cost of supplies to house one box of archival materials, 50 photos, 10 quilts and 10 household objects.

Description	High	Medium	Low
10 Household Objects			
Acid Free Record Storage Box	\$16.15	\$16.15	\$16.15
Unbuffered Acid Free Tissue (25pk) 30"x40"	\$34.40	\$34.40	\$34.40
Cotton Twill Tape-36 yards	\$18.89	\$18.89	\$18.89
Artifact Tags-3/4"x1"-100pk	\$25.60	\$25.60	\$25.60
Sakura Pigma Micron Black Pen	\$6.00	\$6.00	\$6.00
Acryloid B-72 Barrier Coat	\$23.29/1 lb.	\$9.99/0.5 FL oz.	\$9.99/0.5 FL oz.
Acryloid B-67 Barrier Coat	\$23.29/ 1 lb.	\$9.99/0.5 FL oz.	\$9.99/0.5 FL oz.
Rhoplex AC-33 Barrier Coat	\$70.32/Gal	\$21.55/Qt	\$13.01/Pt
TOTAL	\$2,660.38	\$1008.07	\$829.03
MUSEUM VACUUM			
Festool HEPA Dust Extractor Vacuums CT 48E	\$775		
Nilfisk GD-10 Backpack Vacuum		\$597.80	
Datavac Pro Series Two Speed Vacuum			\$305
TOTAL	\$775	\$597.80	\$305
Disaster Prenaredness Kit			

Disaster Preparedness Kit

(Choose One of the Following kits, the Oregon Heritage Commission kit or the expanded National Parks Service kit.)

Small to Medium Sized Kit as Recommended by the

Oregon Heritage Commission, Heritage Bulletin 32, July 2015

Description	High	Medium	Low
1 Roll 10FT x 100FT 2 mil Plastic Sheeting	\$20.97	\$20.97	\$20.97
1 Roll of Duct Tape	\$3.98	\$3.98	\$3.98
Polypropylene Tiger-Twine -325lb Tensile Strength- 3500FT	\$31.00		
Cotton Twine-10 ply-3800Ft Spool		\$13.42	
Cotton Twine-420 FT			\$2.98
Toter 64 Gal Wheeled Trash Can	\$74.98		
Ultrasac 42 GAL Contractor Bags 20 Count		\$12.76	
Ultrasac 45GAL Jumbo Trash Bags 5 Count			\$2.25
Large Cellulose Sponge (2)	\$9.66	\$9.66	\$9.66
5 Gallon Bucket	\$2.97	\$2.97	\$2.97
Nitrile Gloves-1 Box	\$18.30	\$18.30	\$18.30
"Do Not Enter" Tape	\$33.75	\$33.75	\$33.75
Brighton Professional Paper Towels-2 Rolls	\$1.78	\$1.78	\$1.78
Scissors-1 Pair	\$19.09	\$9.99	\$8.39
Sharpened #2 Pencils-12	\$2.69	\$2.69	\$2.69
Sharpie Markers-Black-2 Pack	\$3.89	\$3.89	\$3.89
Lined Notebook	\$1.49	\$1.49	\$1.49
Flashlight-Elite 300 Series - 1200 Lumen Military Grade	\$21.99		
Flashlight-Prosvet 1200 Lumen led Portable Zoomable		\$11.99	

Description	High	Medium	Low
Flashlight-Leafnite LED Adjustable Focus Zoom Water Resistant			\$4.99
3M [™] Disposable Particulate Respirators N95 with 3M [™] 10/Box	\$19.99	\$19.99	\$19.99
TOTAL	\$266.53	\$167.63	\$138.08
ITEMS FOR FIRST RESPONDER BACKPACK I	BELOW		
Backpack REI Co-op Flash 22 Pack	\$54.95		
Backpack REI Co-op Flash 22 Pack		\$49.99	
Backpack REI Co-op Special Edition Flash 18 Pack			\$39.95
Carabiners SecureLine Mini Spring Link (4-Pack)	\$2.97	\$2.97	\$2.97
Hard Hat MSA VGard 500 Vented w/ 4 Point Ratchet Suspension	\$19.31		
Hard Hat Yellow Non-Vented with Ratchet Adjustment		\$10.97	
Hard Hat NS® Power Shell® 4-Point Pinlock Suspension Cap			\$6.49
High Vis Vest ML KISHIGO 1515/1516 BLACK SERIES ANSI CLASS 2 BLACK BOTTOM	\$24.35		
High Vis Vest ML KISHIGO 3700 SERIES INCIDENT COMMAND VEST		\$10.95	
High Vis Vest GSS SAFETY CLASS 2 MESH SAFETY VEST			\$5.69
Safety Glasses-XPR36 Goggle with vents	\$16.45		

Description	High	Medium	Low
Proximity Safety Glasses		\$5.95	
Law Safety Glasses			\$3.05
Respirator-Full Face 3M	\$167.99		
Respirator-3M Professional Multi-Purpose		\$39.97	
Respirator-Half Face for Organic Vapors			\$23.99
Protective Gloves -KutGard® Coated Work Gloves; Seamless Knit Cut Resistant Nitrile With Kevlar® & Lycra® 1/PR	\$5.49	\$5.49	\$5.49
Flashlight-Mupoo Super Bright LED Torch Light Rechargeable	\$13.59		
Flashlight-Dorcy LED with Angle Head		\$4.25	
Flashlight-Ozark Trail 9-LED Mini			\$1.00
Headlamp- Black Diamond Storm	\$49.95		
Headlamp-Black Diamond Cosmo		\$29.99	
Headlamp-Petzl Tikkina			\$19.95
Extra Batteries-Energizer Ultimate Lithium AA Battery (4-Pack)	\$6.98	\$6.98	\$6.98
Storage Clipboard	\$24.99	\$11.44	\$7.60
Emergency Response Salvage Wheel	\$19.15	\$19.15	\$19.15
Red Cross Deluxe Family First Aid Kit	\$28.95		
Red Cross First Aid Kit Plus		\$20.95	

Description	High	Medium	Low
Red Cross Ready First Aid Kit			\$19.95
Radio-Eton Scorpion II Rugged Portable Digital Radio with Crank Power Back-Up	\$45.36		
Radio-Eton American Red Cross, Multi-Powered, Smartphone Charger, Weather Alert Radio and Flashlight in One		\$26.37	
Radio-Eton Hand Turbine AM/FM –LED Flashlight			\$13.25
Plastic Disposable Aprons	\$3.29	\$3.29	\$3.29
Servus Economy Rubber Boots	\$20.00		
Disposable Latex Response Boots		\$8.45	
Disposable PVC Boot Protectors			\$5.50
TOTAL	\$503.77	\$257.16	\$184.30
Expanded Emergency Preparedness Kit Recommended by the National Parks Service	;		
Working with Emergency Responders Poster	\$2.55	\$2.55	\$2.55
Emergency Response Salvage Wheel	\$19.15	\$19.15	\$19.15
Zircon Leak Alert Water Detector		\$27.49	\$27.49
Igage weatherproof paper	\$34.99	\$34.99	\$34.99
Freezer Paper for interleaving (100 pack)	\$14.85	\$14.85	\$14.85
Caution Barrier Tape	\$33.75	\$33.75	\$33.75
Danger Do Not Enter Tape	\$33.75	\$33.75	\$33.75

Description	High	Medium	Low
16" Mop with Wringer	\$55.09		
Sponge Mop Quickie Jumbo		\$14.88	\$14.88
Olympus TG 4 16mp Waterproof Camera	\$379.99		
Olympus TG 870 16mp waterproof camera		\$279.99	
Nikon Coolpix S33 13.2mp Camera			\$109.99
Storage Clipboard-Staples Brand	\$24.99	\$11.44	\$7.60
#2 Pre-Sharpened Pencils-12	\$2.69	\$2.69	\$2.69
Sharpie Markers-Black-12	\$9.99	\$9.99	\$9.99
Micron Pens-Black005-12	\$18.49	\$18.49	\$18.49
Scissors 4 Pair	\$76.36	\$39.99	\$33.56
Door Wedge-4	\$67.96	\$51.96	\$43.96
Object Tags-100 pack	\$25.60	\$25.60	\$25.60
First Aid Kit-50person-260pc	\$69.99		
First Aid Kit-25person-89pc		\$29.99	
First Aid Essentials Kit			\$17.99
Hand Sanitizing Wipes	\$59.99/1000ct	\$8.99/150ct	\$6.49/100ct
Small Nitrile Gloves	\$18.30	\$18.30	\$18.30
Medium Nitrile Gloves	\$18.30	\$18.30	\$18.30
Large Nitrile Gloves	\$18.30	\$18.30	\$18.30
Respirator-Full Face 3M	\$167.99		

Description	High	Medium	Low
Respirator-Half Face for Organic Vapors		\$23.99	
Particulate N95 Mask			\$19.99
Chemtex Level C Coverall	\$70.00		
Zytron Level B/C Coveralls		\$17.55	
Tyvek Coveralls with Elastic Hood			\$6.44
BlueDri Resto Max Carpet Drier System 1-Dehumidifier 8-Air Movers 1-Negative Air Scrubber	\$2310		
Max Storm Air Mover-Carpet Drier		\$149	
Stanley High Velocity Fan-Carpet Drier			\$54.37
Dustless Vac with HEPA filter 16 Gal	\$545		
Shop Vac Wet/Dry 22 Gal		\$268	
Rigid Wet/Dry Vac 14 Gal			\$99
Poly Cart with Lid for Storing and Transporting Supplies	\$425		
Toter 64 Gal Wheeled Trash Can		\$74.98	\$74.98
Servus Economy Rubber Boots	\$20.00		
Disposable Latex Response Boots		\$8.45	
Disposable PVC Boot Protectors			\$5.50
Goggles-XPR36 with Vents	\$16.45ec		

Description	High	Medium	Low
Proximity Safety Glasses		\$5.95ec	
Law Safety Glasses			\$3.05ec
Large Cellulose Sponge	\$59.98/24ct	\$59.98/24ct	\$4.85ec
Squeegee 30"	\$34.00		
Squeegee 24"		\$32.00	
Squeegee 18"			\$28.00
Unger Bucket 6 GAL	\$19.99		
Ti-Dee American 15 QT Bucket		\$8.97	
5 GAL Bucket			\$2.97
Quickie 24" Push Broom	\$32.98		
Quickie 24" Push Broom		\$24.88	
Quickie 2 in 1 Broom and Squeegee			\$17.97
Jumbo Debris Dustpan	\$16.99		
Quickie Dustpan and Broom		\$12.99	
Quickie 10 ½" Dustpan with Brush			\$6.98
8LB Bag of Rags		\$19.98	
4LB Bag of Rags			\$11.98
Terry Cloth Towels 60pk	\$19.97		
Terry Cloth Towels 48pk		\$14.48	
Terry Cloth Towels 20pk			\$8.97

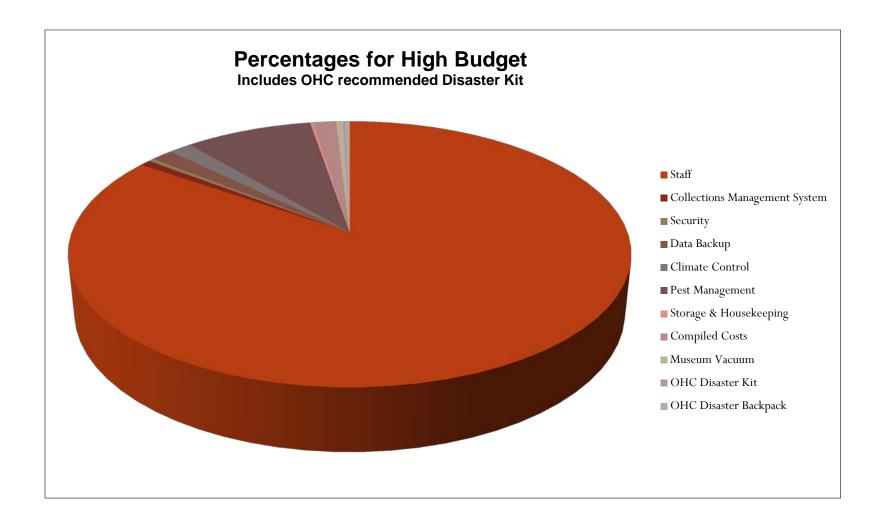
Description	High	Medium	Low
Bounty Paper Towels 6 Rolls	\$13.97		
Bounty Paper Towels 6 Rolls		\$7.97	
Sparkle Paper Towels 6 Rolls			\$6.97
Unbuffered Blotting Paper 50pk	\$465		
Unbuffered Blotting Paper 25pk		\$161.85	
Unbuffered Blotting Paper 10pk			\$27.55
Emergency Lighting Station-378 Lumen	\$49.00		
Coast LED Flashlight		\$34.98	
Flashlight 130 Lumen 2pk			\$9.97
Powersmith 6000 Lumen Work light	\$169.99		
Husky 5FT 2500 Lumen LED Work Light		\$79.88	
HDX Halogen Work Light			\$9.96
Rigid 50FT 3 Outlet Extension Cord	\$69.97		
Rigid 50FT 3 Outlet Extension Cord		\$44.97	
3 Outlet Extension Cord			\$29.97
10FTx100FT 4mil Plastic Sheeting	\$43.17	\$43.17	
10FTx25FT 3.5mil Plastic Sheeting			\$10.78
Nashua Tape (Duct Tape) 12pk	\$46.86		
Nashua Tape (Duct Tape) 2pk		\$10.98	
Nashua Tape (Duct Tape) 1 Roll			\$3.98

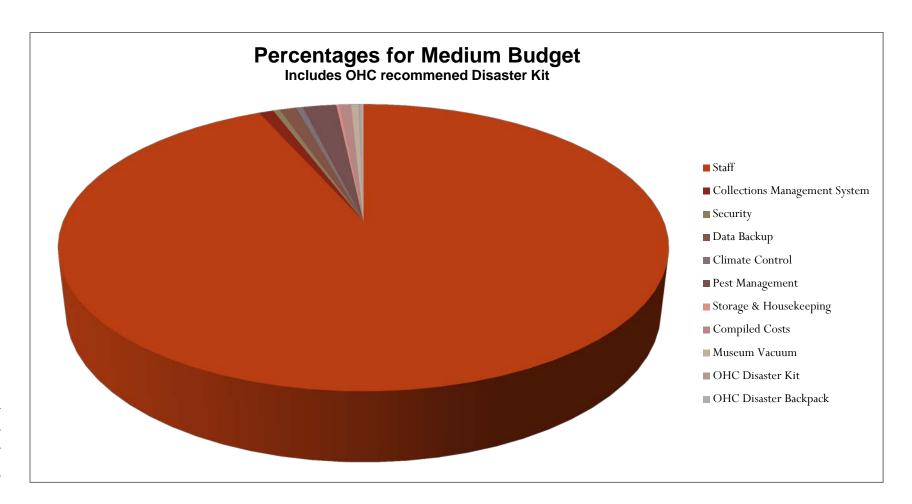
Description	High	Medium	Low
12x15x10 Polypropylene Boxes for Moving Wet Objects	\$13.10ec	\$13.10ec	\$13.10ec
10GAL Wastebasket Liners 250ct	\$6.74	\$6.74	\$6.74
50GAL Clear Trash Bags 50ct	\$14.99	\$14.99	\$14.99
42GAL Contractor Cleanup Bags	\$17.97	\$17.97	\$17.97
Zip Ties 1000pk	\$22.57		
Zip Ties 650pk		\$9.97	
Zip Ties 100pk			\$6.97
Husky Variety Screwdriver Set	\$7.97	\$7.97	\$7.97
Estwing 16oz Hammer	\$21.84		
Husky 20 oz. Hammer		\$12.99	
HDX 16oz Hammer			\$6.97
4 Piece Plier Set	\$19.99	\$19.99	\$19.99
Dewalt Multi-Function Crowbar	\$29.97		
Dewalt Crowbar		\$14.97	
Tekton 18" Crowbar			\$7.34
Husky Vice Grips Set	\$19.97	\$19.97	\$19.97
Husky Folding Utility Knife	\$7.88		
Olfa Ratchet Lock Utility Knife		\$6.97	
HDX Retractable Utility Knife			\$1.98
1 ½" Common Nails 1LB	\$4.97	\$4.97	\$4.97

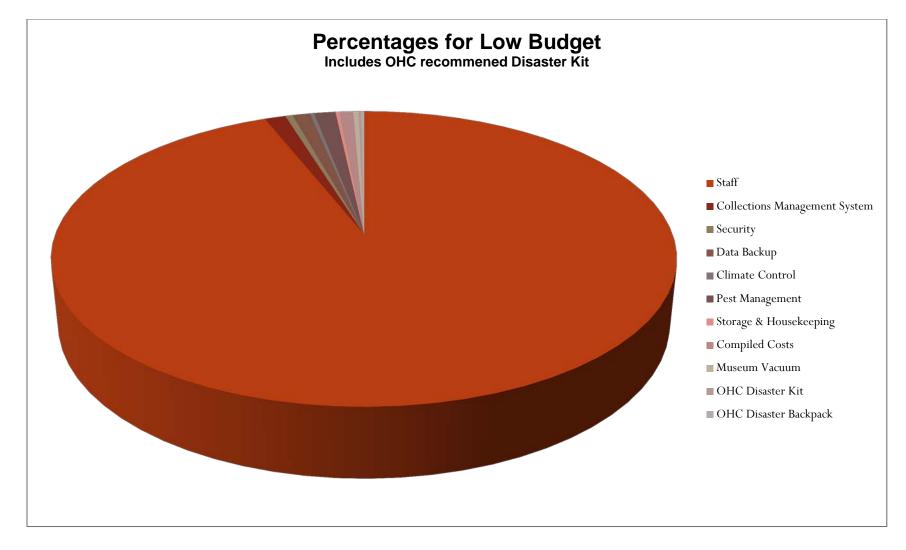
TOTAL	\$5,769.35	\$1971.04	\$1085.86
GRAND TOTAL ⁶	\$173,473.33-	\$131,264.12-	\$95,737.14-
	\$168,474.28	\$129,717.87	\$94,973.66

 $^{^{6}}$ Grand totals are highly variable based on emergency kit chosen, number of employees, and amount of supplies purchased.

Percentage of Expenses







Explanation of Expense Categories

Staff

The cost of staff was gathered from the American Alliance of Museums 2012 National Comparative Museum Salary Study. The study groups museum careers into percentiles based on how many people in the nation were paid a certain wage. For this budget analysis, included is the 75th percentile, the median and the 10th percentile or lowest paid in the country⁷.

Additionally included in this category is the value of a trained volunteer. Volunteers have an assigned value determined by the organization Independent Sector. The value of volunteer time is based on the hourly earnings (approximated from yearly values) of all production and non-supervisory workers on private non-farm payrolls average (based on yearly earnings provided by the Bureau of Labor Statistics) for the national average. Independent Sector indexes this figure to determine state values and increases it by 12 percent to estimate for fringe benefits. Reeping detailed records of volunteer hours can help in obtaining grant money by showing grantors you have community investment in your organization.

Collections Management System/IT Support

Having a proper collections management system is crucial in gaining intellectual authority of what your organization is housing. With proper collections management software you will be able to track location, condition and scheduled maintenance of your objects. Depending on the software you will also be able to link objects to donors and create form letters for proper documentation and gift acknowledgement.

⁷Philip M. Katz. American Association of Museum "2012 National Comparative Museum Salary Study." 2012, *American Alliance of Museums*, https://freshinthefield.files.wordpress.com/2012/12/2012_museum_salary_study.pdf

⁸ Independent Sector "The Value of Volunteer Time" May 31st 2016, http://www.independentsector.org/resource/the-value-of-volunteer-time/

Having IT support for your museum software at least in the first year will help in learning the product faster and alleviating frustrations that will more than likely arise at some point. The easier it gets to use your new software, the more often you will likely continue documenting the objects in your collection, as well as train others to assist with your documentation.

Data Backup

External Hard Drive

A regular backup of your computer's hard drive onto an external hard drive is smart security measure for not losing all the documentation you have done. It will also become necessary as you fill up storage space on your computer over time. It is important that the external hard drive is stored in a fire-proof vault or offsite until your next backup to prevent losing all your data in the event of a disaster.

Server

If your organization has multiple buildings or workstations and would like the majority of your data accessible everywhere, you may consider a server. A single server can serve multiple clients or computers and a single client can use multiple servers. As your institution grows this may be something to consider.

Security

A security program needs to take priority in being initiated at your museum to insure an extra layer of protection for the building, exhibits and artifacts. Once this program is in place no one is exempt, including the executive director, board of trustees and other museum staff. At a minimum a burglary alarm for the building and keyed access to collections storage should be initiated. Consider how hard it is to access your building and objects as well as whether it will be open year round. Many museums are seasonal and if left unattended for too long could be a target for vandals. It is the duty of museum staff to take

reasonable measures to reduce the risk of loss in the collection. If an object is worth being accessioned into the collection then it is worth protecting to the fullest extent possible.⁹

Insurance

Museum insurance can be highly variable depending on the type of collection, the building and its location. Aside from the museum's permanent collection, other types of insurance should be considered such as insurance for loans, insurance when traveling with artifacts, and board of trustee insurance. In order to include an accurate quote for your budget you will need to speak with an insurance agent about your specific needs. Refer to the Bibliography and Sources page for resources on getting started with insurance in museums.

Climate Control

Controlling the climatic environment of your storage may be one of your most important investments. Culminating with a report issued by the American Institution of Conservation in June 2010, the most recent interim standards have established that most cultural institutions should strive for a set point in the range of 45-55% relative humidity (±5%) with a total annual range of 40% minimum to 60% maximum and a temperature range of 59-77 degrees Fahrenheit. If it is possible, monitor the temperature and humidity of your storage space for one year before adding your collection to it. ¹⁰ Always continue monitoring the climate of your storage space on a regular basis. The equipment suggested for climate control is primarily for monitoring rather than adjusting the climate. In order to control the temperature and humidity of your space you will need to work with an HVAC specialist that can create a system specialized for the size of your space and specific environmental concerns. For smaller budgets a humidifier/dehumidifier can be used to help maintain relative humidity, this method will require more frequent monitoring. While deterioration cannot be stopped, it can be slowed down greatly, monitoring heat, light and humidity will go a long way toward slowing this process. Refer to the sources page for options to estimate your HVAC needs and expenses.

⁹ The Museum, Library, and Cultural Properties Council of ASIS International AND The Museum Association Security Committee of the American Association of Museums.

[&]quot;Suggested Practices for Museum Security." May 2006, Security Committee,

 $http://www.securitycommittee.org/securitycommittee/Guidelines_and_Standards_files/SuggestedPracticesRev06.pdf$

¹⁰ American Institute of Conservation report June 2010

Pest Management

Monitoring pest issues in the museum is a routine part of caring for your collection. Even if your institution has never had a problem with pests, an issue can arise at any time due to incoming collections and their unknown conditions. Ideally, it would be recommended that a museum contract the services of a professional pest management vendor as part of a defined Integrated Pest Management Plan. In addition to pest traps a large mitigation of insects is a freezer for artifacts. A freezer can be used preventively for many artifacts, though not all, to kill pests seen or unseen. In order to effectively eradicate insects the freezer must be able to reach a minimum of -5°F. Of the three freezers chosen for this budget the Cascade Scientific-Nuaire Ultralow Freezer was the most expensive; it is also the largest at 25.7cu.ft. and can reach the lowest temperature at -86°C. This freezer would be ideal for museums that acquire a large amount of organic materials which are especially prone to infestations. The other two freezer choices listed are more economical for small to mid-size museums and are both able to reach the required -5°F. The Bibliography and sources pages include resources for further reading and in-depth instructions on the freezing process and how to manage museum pests.

Storage Space

The cost of storage space can vary wildly depending on location, square footage and condition of building. In order to get a precise cost for building rental or ownership consult with a realtor in your area. For a rough estimate on costs per square foot the following guide can be referenced. This guide will show costs per square foot trends for every county in Oregon and is updated monthly. These costs estimates are reflecting residential buildings and won't be the same for commercial settings. It is a useful guide to get a ballpark number and track trends in real estate for your specific area.

https://www.zillow.com/research/data/

Storage and Housekeeping Supplies

Periodic cleaning of artifacts and their surrounding spaces will be necessary in mitigating the agents of deterioration in your collection. In order to stay organized and current with routine maintenance a cleaning log sheet can be created. Include on the

¹¹ National Parks Service. "Conserve-O-Gram, An Insect Pest Control Procedure: The Freezing Process." July 1994, *Conserve-O-Gram*, https://www.nps.gov/museum/publications/conserveogram/03-06.pdf

log sheet a space for the date a task was completed and a space for the initials of the person doing the work. The schedule should comprise of daily, weekly, monthly, quarterly, semi-annual and annual work.¹² The supplies listed in this budget are primarily for routine, lite housekeeping, for more advanced care it is important to defer to the skills of a conservator.

Compiled Costs for Archival Supplies

It is important to recognize that the compiled costs are for a limited number of archives, photo and artifacts. It will be necessary to know the number of artifacts in your collection, or have a close estimate, to know the quantity of supplies needed. Only basic archival supplies have been notated, with the exception of a quilt rack. It is important to have intellectual control of your collection in order to know what your institution's greatest needs are. Some types of collections may require more complicated storage procedures than others.

Museum Vacuum

Museum vacuums can be used for housekeeping, dusting, removing pest waste and mold cleanup. Keeping artifacts dust free will help eliminate harmful buildup and excess moisture that is held in the dust particles. It is important to distinguish between the artifact vacuum and the wet/dry vacuum for disasters. A built in HEPA filter and extremely well sealed vacuum are important features to look for when choosing a vacuum. If hose connections and dust collection parts are not well sealed the vacuum will blow the dust it is absorbing back into the collections environment, causing long-term problems and defeating the purpose of housekeeping. A vacuum with a proper HEPA filter is also working to protect the user from harmful particulate that may come off of artifacts. ¹³

¹² Minnesota Historical Society. "Minnesota Historical Society Historic Housekeeping Handbook." June 2000, file:///C:/Users/vmuseum/Downloads/MHS Housekeeping Handbook.pdf

¹³ Johnson, Jessica S.;Floray, Steven P. "Conserve-O-Gram, Choosing a Museum Vacuum Cleaner." June 2003, https://www.nps.gov/museum/publications/conserveogram/01-06.pdf

Disaster Preparedness Kit

In order to represent the needs of museums of differing sizes and risk, two disaster kit options have been presented. The first option is recommended by the Oregon Heritage Commission and includes a mobile backpack kit as well. The second option is recommended by the National Parks Service and is a more expanded kit. The expanded kit would be a superior option for museums in areas that are prone to natural disasters. It is important to note that costs indicated for personal items such as a respirator are accounting for one person and will need to be multiplied if you are intending to have personal protective equipment for more than one staff member. It would also be wise to customize your kit according to the disaster most likely to affect your area. Take all types of disasters into consideration when building your kit, both natural and man-made. Additionally, the kits listed in this budget are primarily for caring for the collection, this does not take into account the needs of staff or volunteers such as clean water and food. 14 15

Conclusion

The cost of caring for a collection can vary immensely given the set circumstances of your institution. In order to get the maximum benefit from your collection budget it will be necessary for the collections department staff to take inventory of what they are caring for. Identifying where the greatest needs are will help to systematically eliminate issues within your collection and maintain well preserved artifacts. Funding and implementing solutions to collections issues can only be done with priorities in mind. Above all else approach your collection with best practices and intention in mind and you will pave a path to success for your institution.

¹⁴ Oregon Heritage Commission Mentor Corps. "Heritage Bulletin 32: Disaster Recovery Tools." July 2015, https://www.oregon.gov/oprd/HCD/docs/Heritage_Bulletins/HB32_Disaster_Recovery_Tools.pdf

¹⁵ National Parks Service "Conserve-O-Gram, An Emergency Cart for Salvaging Water-Damaged Objects." January 2002, https://www.nps.gov/museum/publications/conserveogram/21-02.pdf

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Staff

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Bureau of Labor Statistics, "Occupational Employment and Wages, Museum Technicians and Conservators." https://www.bls.gov/oes/current/oes254013.htm

Independent Sector, "The Value of Volunteer Time" http://www.independentsector.org/resource/the-value-of-volunteer-time/

Collections Management System

Past Perfect Museum Software, Past Perfect 5.0

http://www.museumsoftware.com/pp5.html

Security

Security Committee, "Suggested Practices for Museum Security"

http://www.securitycommittee.org/securitycommittee/Guidelines_and_Standards_files/SuggestedPracticesRev06.pdf

ADT Security

https://www.adt.com/

Safewise, "The Best Home Security Systems of 2017" https://www.safewise.com/best-home-security-system

Insurance

DeWitt Stern "Designing your Insurance Program, "An Insurance Handbook" http://www.dewittstern.com/docs/Museum%20Insurance%20Guide%20-%20Generic.pdf

Inland Marine Underwriter's Association, "Museums a Fine Art Underwriting Primer" http://www.imua.org/Files/reports/MuseumsA_Fine_Art_Underwriting_Primer.html

Data Backup

Amazon

https://www.amazon.com/ref=nav_logo

Dell

http://www.dell.com/en-us/work/shop/category/servers

Climate Control

National Parks Service, "Museum Handbook Part 1 Museum Collection, Chapter 4: Museum Collections Environment" https://www.nps.gov/museum/publications/MHI/chap4.pdf

National Parks Service "Conserve-O-Gram, "Using a Psychrometer to Measure Relative Humidity" https://www.nps.gov/museum/publications/conserveogram/03-01.pdf

National Parks Service "Conserve-O-Gram, "Calibration of Hygrometers and Hygrothermographs" https://www.nps.gov/museum/publications/conserveogram/03-02.pdf

National Parks Service "Conserve-O-Gram, "Comparing Temperature and Relative Humidity Dataloggers for Museum Monitoring"

https://www.nps.gov/museum/publications/conserveogram/03-03.pdf

Cool Calc- A free beta program for estimating load requirements for HVAC systems https://www.coolcalc.com/products/manual-j

Alpine Home Air-Heating and cooling yearly operating costs calculator https://www.alpinehomeair.com/hc/

American Institute of Conservation

Gaylord Archival

http://www.gaylord.com/

Talas Bookbinding, Archival and Conservation Supplies http://www.talasonline.com/

Pest Management

National Parks Service, "Conserve-O-Gram, An Insect Pest Control Procedure: The Freezing Process" https://www.nps.gov/museum/publications/conserveogram/03-06.pdf

National Parks Service, "Conserve-O-Gram Monitoring Insect Pests with Sticky Traps" https://www.nps.gov/museum/publications/conserveogram/03-07.pdf

National Parks Service, "Conserve-O-Gram, Controlling Insect Pests: Alternatives to Pesticides" https://www.nps.gov/museum/publications/conserveogram/03-08.pdf

National Parks Service, "Conserve-O-Gram, Anoxic Microenvironments: A Treatment for Pest Control" https://www.nps.gov/museum/publications/conserveogram/03-09.pdf

National Parks Service, "Museum Handbook Part 1: Chapter 5 Biological Infestations" https://www.nps.gov/museum/publications/MHI/CHAP5.pdf

Orkin Pest Control http://www.pestremovalzone.com/

Gaylord Archival http://www.gaylord.com/

Nuaire Laboratory Equipment http://www.nuaire.com/

Webstaurant Store https://www.webstaurantstore.com/

Storage and Housekeeping

Minnesota Historical Society, "Historic Housekeeping Handbook" file:///C:/Users/vmuseum/Downloads/MHS_Housekeeping_Handbook.pdf

Minnesota Historical Society, "Cleaning Practices" file:///C:/Users/vmuseum/Downloads/CleaningPractices_000.pdf

National Parks Service, "Museum Handbook Part 1: Chapter 13 Museum Housekeeping" https://www.nps.gov/museum/publications/MHI/CHAP13.pdf

Talas Bookbinding, Archival and Conservation Supplies http://www.talasonline.com/

Amazon

https://www.amazon.com/

Compiled Costs for Cataloging Artifacts

Gaylord Archival

http://www.gaylord.com/

Talas Bookbinding, Archival and Conservation Supplies http://www.talasonline.com/

Hollinger Metal Edge

https://www.hollingermetaledge.com/

University Products

https://www.universityproducts.com/

Museum Vacuum

National Parks Service, "Conserve-O-Gram Choosing a Museum Vacuum Cleaner" https://www.nps.gov/museum/publications/conserveogram/01-06.pdf

Gaylord Archival

http://www.gaylord.com/

Talas Bookbinding, Archival and Conservation Supplies http://www.talasonline.com/

Disaster Preparedness Kit (Includes recommendations from Oregon Heritage Commission and National Parks Service)

National Parks Service, "Museum Handbook Chapter 10: Emergency Planning" https://www.nps.gov/museum/publications/MHI/CHAP10A-B.pdf

National Parks Service, "Museum Handbook Chapter 10: Fillable Risk Assessment Worksheet" https://www.nps.gov/museum/publications/MHI/Fillable_Risk Assessment_Worksheet.pdf

National Parks Service, "Conserve-O-Gram, Preparing Salvage Caches for Emergency Use" https://www.nps.gov/museum/publications/conserveogram/02-06.pdf

National Parks Service, "Conserve-O-Gram, an Emergency Cart for Salvaging Water-Damaged Objects"

https://www.nps.gov/museum/publications/conserveogram/21-02.pdf

Oregon Heritage Commission, "Heritage Bulletin #27: Disaster Planning and Response" https://www.oregon.gov/oprd/HCD/docs/Heritage_Bulletins/HB27_Disaster_Plan_and_Response.pdf

Oregon Heritage Commission, "Heritage Bulletin #32: Disaster Recovery Tools"

https://www.oregon.gov/oprd/HCD/docs/Heritage_Bulletins/HB32_Disaster_Recovery_Tools.pdf

Home Depot

http://www.homedepot.com/

Uline

https://www.uline.com/

New Pig

https://www.newpig.com/

Quill

https://www.quill.com/

Amazon

https://www.amazon.com/

REI

https://www.rei.com/

Cooper Safety Supply

http://www.coopersafety.com/

Northern Safety and Industrial

https://www.northernsafety.com/

Hi Vis Supply

https://www.hivissupply.com/

American Red Cross

http://www.redcross.org/hp/0617-1

Best Buy

http://www.bestbuy.com/

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 $http://www.securitycommittee.org/securitycommittee/Guidelines_and_Standards_files/SuggestedPracticesRev06.pdf$

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