



Museums for America

Sample Application MA-30-16-0288-16
Project Category: Collections Stewardship
Funding Level: \$25,001-\$150,000

Denver Museum of Nature and Science

Amount awarded by IMLS:	\$149,975
Amount of cost share:	\$157,071

Attached are the following components excerpted from the original application.

- Abstract
- Narrative
- Schedule of Completion

Please note that the instructions for preparing narratives for FY2017 applications differ from those that guided the preparation of previous applications. Be sure to use the narrative instructions in the FY2017 Notice of Funding Opportunity for the grant program and project category to which you are applying.

ABSTRACT

The Denver Museum of Nature & Science requests a \$149,975, 3-year IMLS Museums for America Collections Stewardship grant to provide conservation stabilization treatment for 375 high priority objects in the American Ethnology Collection (AEC-Treatment) and disseminate project results through outlets such as DMNS publications, a photographic blog, and a conference presentation. The entire collection is comprised of 13,355 objects representing the materials, technologies, and designs of 420 American Indian tribes. The continued preservation and access of this significant collection is both the Conservation and Anthropology departments' highest stewardship priority for treatment. The project will be headed by Project Director Jude Southward, Conservator and Avenir Conservation Center Chair, who has extensive experience leading IMLS-supported conservation and rehousing projects. IMLS funding would support a Contract Conservator, Jessica Fletcher, to assist DMNS staff with the conservation treatments. Concurrent to the project, and after stabilization treatment has occurred, the objects will be rehoused with customized mounts into new storage cabinets. DMNS is using the cost of the cabinets needed to store these objects as well as staff and volunteer time as institutional cost share.

This project completes the work that began with a 2009 Save America's Treasures (SAT) grant through which DMNS conducted a collection condition assessment of the American Ethnology Collection. There were 375 objects identified that exhibit structural and/or surface instabilities to an extent that the objects require conservation stabilization treatment prior to handling and rehousing to avoid causing further damage. Due to space constraints, further stabilization treatment of the objects identified as priorities could not be completed until the new conservation center and collections storage facility (which at the time were in a planning phase) were complete. As construction of the Museum's new Avenir Collections Center including a conservation lab was completed in early 2014, this project is once again a high priority.

The AEC-Treatment project advances the Museum's most fundamental purpose and its strategic plan by completing much-needed conservation treatments as a critical step in the continuum of optimal collections care. Once treatments are complete, the objects will be rehoused into the new facility. The project shares an overarching goal with IMLS to support exemplary stewardship of museum collections and promote the use of technology to facilitate discovery of knowledge and cultural heritage. Specifically, as a result of this project, DMNS will advance the IMLS standard performance goal to improve preservation, conservation, and care of the Nation's content and collections. The project will improve DMNS stewardship by ensuring long-term preservation and access to objects within the valued American Ethnology Collection, and it will facilitate discovery and learning of the project, the cultures represented, and the stabilized collections through technology and other means of dissemination.

Results of the project will be broadly disseminated during and after the project's completion through articles in the DMNS member magazine, *Catalyst* (delivered to more than 60,000 member households), and the Research and Collections Division Newsletter, and through a photographic blog on the DMNS website. The blog will be maintained for public viewing after the project ends and digital images will be permanently available through Luna Insights and KE IMu, the Museum's two publically accessible online collection databases. Project Conservators will submit an article for potential publication to a professional journal such as *Collection Forum* or *Collections Journal*. We will provide tours of the conservation lab, collections center, and the project for conference attendees and prepare a paper to be presented at the 2017 Society for the Preservation of Natural History Collections conference hosted by DMNS in Denver. Results may also be presented at a DMNS *Be A Catalyst* donor event. Knowledge about the project will also be shared through regular behind-the-scenes tours.

Success will be measured by the objects' completed treatments and greatly increased and safer accessibility, benefiting all who seek to examine, explore, learn from, and work with the collections. Ultimately, this project will provide the physical stability to the treasures of the American Ethnology Collection such that they may be physically accessed, many for the first time, by students, researchers, American Indian tribes, exhibits, collections managers, for loans, and for visitors everywhere for generations to come.

I. STATEMENT OF NEED

1. Project Proposal: The Denver Museum of Nature and Science (DMNS) requests \$149,975, for a three-year project to provide conservation stabilization treatments for 375 high priority objects in the American Ethnology Collection (AEC-Treatment). The continued preservation and accessibility of this significant collection is both the Conservation and Anthropology departments' highest stewardship priority for treatment. Major project activities include completing conservation stabilization treatments with all associated written and photographic documentation, and disseminating project results through outlets such as DMNS publications, a photographic blog, and a conference presentation. IMLS funding would support a contract conservator to assist the DMNS Conservator with the conservation treatments. Concurrent to the project, and after stabilization treatment has occurred, the objects will be rehoused with customized mounts into new storage cabinets. DMNS is using the cost of the new cabinets and supplies, as well as staff and volunteer time as institutional cost share.

2. High-priority collections-related need that the project addresses: The project will provide much-needed conservation treatment for objects in the American Ethnology Collection prior to rehousing them into new, purpose-built storage. This project promotes stabilization in the short-term so the objects can be safely handled for rehousing, and in the long-term for improving overall collections stewardship preservation and access.

The Museum's commitment to conservation activities began with a 1988 General Survey Report which spurred the institution to commit to improved storage of collections. The Survey also resulted in the Museum's first Long-range Conservation Plan (Appendix A). From 2008-2010, the Museum updated the General Survey Report by completing an IMLS-funded risk assessment for collections in storage (Southward and Thorwald 2010; Southward et al. 2013) (Appendix B). This assessment provides the essential quantitative information that guides the Museum's top stewardship priorities toward balanced and cost-effective preservation, collections management, and access goals.

In 2009-2013, DMNS received funds from the Save America's Treasures (SAT) program (IMLS Award Number ST-03-09-0024-09) to prepare the nationally significant American Ethnology Collection for its anticipated move to the new, purpose-built storage facility, the Avenir Collections Center. A portion of the SAT project included a collection condition assessment that was completed for 13,355 objects. The assessment identified 481 objects that have structural and/or surface instabilities that require conservation stabilization treatment prior to rehousing. The most urgent high priority objects (106) received stabilization treatment during the SAT grant period. Due to space constraints, treatments for the remaining 375 objects could not be completed until the new storage facility and associated conservation center (then in the planning phase) were built. These facilities were completed in 2014, and this treatment project is once again a high priority. The remaining approximately 13,000 objects assessed in the SAT grant do not require conservation treatment prior receiving their customized mounts and are being addressed separately in the Anthropology Workshop in the continuum of rehousing.

This AEC-Treatment project is also a high priority because the American Ethnology Collection is commonly requested for use by researchers, including American Indian scholars, and for loans and exhibits. This collection is a nationally significant resource of exceptional value for interpreting and presenting the cultural heritage of 420 American Indian tribal nations. The collection facilitates the study of cultural identity, representation and persistence, and showcases a wide range of materials, technologies, and designs.

3. Project Beneficiaries: The AEC-Treatment objects will benefit from conservation treatment, as this will provide the stabilization that is a critical next step in allowing the collection to be rehoused and accessed. Current and future generations of scientists, researchers, museum professionals, diverse regional communities, and the general public will benefit from increased preservation and access – both physical access via exhibits and behind the scenes tours, and virtual access of some objects through online databases and a blog. Improved physical access also allows for continued condition monitoring by DMNS personnel. The Museum is in compliance with NAGPRA, and furthermore, is recognized as a leader in the repatriation of human remains for cultures and materials not covered by NAGPRA. Most broadly, the project benefits all Museum audiences by advancing its mission, vision, and strategic plan.

4. How the project advances the DMNS strategic plan: In the current strategic plan ongoing preservation of the collections is identified as a constant and foundational purpose of the Museum (reflected in our underlying assumptions in the attached Strategic Plan summary). The AEC-Treatment project advances the Museum's most fundamental purpose and its strategic plan by completing much-needed conservation treatments as a critical step in the continuum of optimal collections care. Once treatments are complete, the objects will be rehoused into the new Avenir Collections Center. The strategic plan also articulates a vision of an empowered community that loves, understands, and protects our natural world. This vision is advanced by tangible objects in the collections. DMNS staff curate, preserve, and manage the real and authentic content of collections for future generations.

5. How the Project Addresses the Goals of IMLS Museums for America: The project shares an overarching goal with IMLS to support exemplary stewardship of museum collections and promote the use of technology to facilitate discovery of knowledge and cultural heritage. The project will:

- 1) Advance the IMLS standard performance goal for Collections Stewardship to improve preservation, conservation, and care of the Nation's content and collections.
- 2) Improve DMNS stewardship by ensuring long-term preservation and access to objects within the valued American Ethnology Collection.
- 3) Facilitate discovery and learning of the project, the cultures represented, and the stabilized collections through technology and other means of dissemination.

The new Avenir Collections Center and the AEC-Treatment project allow DMNS to fulfill its stewardship responsibility of long-term preservation care and access for the collections it holds in public trust. This objective aligns with the MFA Collections Stewardship purpose to support exemplary management, care, and conservation of museum collections. The project addresses a well-documented need for a high-priority collection. The proposed communication venues help the Museum to communicate stewardship principles.

II. IMPACT

1. Intended Results: The proposed activities will result in improved physical and intellectual stewardship of the cultural heritage embodied by the American Ethnology Collection. The process will enable us to complete the work begun by the SAT grant of providing optimal preservation and access to the entire collection. The project will enhance access to the collection, increase knowledge among staff and volunteers about the American Ethnology cultures and collections, improve handling, and raise awareness of conservation techniques. Researchers and the public will have improved access to the collection physically through guided tours and digitally via KE IMu (soon to be launched) and Luna Insight, the two publically accessible interfaces of the Museum's extensive collections database. These audiences have the potential to gain greater understanding of the cultures represented and the Museum's role in collections stewardship.

2. How Stewardship Care Will Be Improved: Through conservation stabilization treatment, this project will dramatically improve the preservation of the American Ethnology Collections. DMNS stewardship of collections has always aimed at providing optimal conditions that reduce the risk from physical, chemical, and biological deterioration factors. This project will address all of these factors for this significant collection. For instance, separate detached elements will be reattached and areas that are unwoven or unsewn will be stabilized. The project will result in the reestablishment of authentic content and facilitation of sustainable stewardship and access. Conservation-approved methods and materials will be used and ensure a new baseline stability for the objects. Concurrently, customized mounts will provide each object with individualized support and adequate perimeter spacing to protect against crowding, while the new powder-coated cabinets and drawers will provide protection from volatile organic compounds, as well as light, dust, water, and pests. The project will update the condition and treatment records for the AEC-Treatment collections and allow the objects to be easily accessed by staff for condition checks, pest monitoring, and in the event of an emergency.

3. Tangible Products: Tangible products will include 375 objects that are stabilized through conservation treatment, including all examination records, treatment proposals and reports, and associated images that document the treatment steps. Records, reports, and images will be entered into the KE EMu database and a hard copy will be filed in the archival records. Other tangible products include the updated volunteer training

manual, digital and print publications included in dissemination activities described in section III.1, and interim and final narrative and financial reports that will be created and submitted to IMLS.

4. Sustainability: The benefits of this project are sustainable and will be maintained beyond the conclusion of this award because the activities lessen risks to the collection and promote both long-term preservation and access, in line with the Museum's Long-range Conservation Plan (Appendix A). The stabilization treatments, in combination with routine condition monitoring from strong DMNS preventive conservation programs already in place, are reasonable and practical methodologies, and will ensure that any future deterioration is detected and slowed. The conservation treatments and the new cabinets allow the objects to be routinely accessed. The Avenir Collections Center itself was built with sustainability in mind and is LEED-Platinum certified.

III. PROJECT DESIGN

1. Project Activities: The project will result in conservation stabilization treatment for 375 objects in the American Ethnology Collection. The project is divided into pre-grant; preparatory and administrative; conservation; collections management; access and dissemination of project results; and evaluation activities. Many activities (summarized below) occur concurrently (Schedule of Completion).

Pre-grant: (DMNS Conservator)

- Monitor environmental conditions and conduct IPM in the new Avenir Collections Center
- Review conservation literature and contact conservators about treatment methods and materials

Preparatory and administrative: (DMNS Conservator, Contract Conservator, Curator of Anthropology, Anthropology Collections Manager, Volunteer Services Coordinator, Volunteers, Image Archivist, Photographer, Evaluation Project Manager, Administrative Manager, Director of Collections Operations)

- Order and install new storage cabinets (Appendix C – Quotes and specifications for cabinets)
- Order supplies for conservation treatments (listed in both Budget Justification and Appendix C)
- Update volunteer training manual, recruit project volunteers and coordinate their scheduling
- Orient project personnel to activities, introduce the American Ethnology Collection and objects, and refresh volunteer training on workplace safety, bead stabilization methods, and database entry
- Track grant and cost share expenditures and information for IMLS interim and final reporting
- Complete interim and final reports and submit to IMLS
- Create permanent records of all project reports for the DMNS Archives

Collections management: (Anthropology Collections Manager, Curator of Anthropology)

- Unpack objects and move them into the conservation lab for stabilization treatment. After treatment, move the objects back to the Anthropology Workshop for mount-making and storage in new cabinets
- Movements of all objects are tracked in the KE EMu database
- Curate any detached fragments from the objects that cannot be stabilized in place during treatment and any historic documentation, such as labels

Conservation (specific conservation activities are described in greater detail below): (DMNS Conservator, Contract Conservator, Curator of Anthropology, Photographer, and Volunteers)

- Curator approves all treatment methods and materials prior to conservation stabilization treatment
- Complete stabilization treatment for 375 objects in the American Ethnology Collection, including generating in the KE EMu database all associated written and photographic conservation documentation
- Shoot digital images of all object treatments and project activities (Warda 2011).
- Link all conservation documentation and digital images in the KE EMu database; further link select reports and images in the KE IMu and Luna Insight, the Museum's publicly accessible databases (KE IMu is currently being added to KE EMu)

Access and dissemination of project results: (DMNS Conservator, Contract Conservator, Curator of Anthropology, and Photographer)

- Write five blog entries featuring a project description and professional photos for the science blog on the DMNS website, one each at the beginning and end of the project, and three annual progress updates

- Submit an abstract on project progress for a paper to be delivered at the annual Society for the Preservation of Natural History Collections (SPNHC) annual meeting hosted by DMNS in June 2017
- Give tours of the project, new storage facility, and conservation lab to SPNHC conference attendees
- Write a photo-illustrated article for the Museum's member magazine, *Catalyst*, and one smaller article for the Museum's Research and Collections Division newsletter
- Submit an article for potential publication to professional journals, such as *Collection Forum* and *Collections Journal*
- Conduct ongoing behind-the-scenes tours of the project to further community knowledge

Evaluation (specific evaluation activities are described in greater detail below): (DMNS Conservator, Evaluation Project Manager)

- Track all quantitative deliverables via an assessment rubric
- Administer qualitative questionnaire to project personnel annually
- Synthesize and analyze data for process improvements and for inclusion in IMLS reports

Specific Conservation Activities: The AEC-Treatment project proposes to complete conservation stabilization treatment for 375 high priority objects in the American Ethnology Collection and all associated written and photographic documentation. These objects were identified in the 2009-2013 Save America's Treasures (SAT) collection condition assessment as having structural and/or surface instabilities that require treatment prior to rehousing. This next step of stabilization is necessary so that the objects can be safely handled in the short-term; in the long-term the project ensures sustainable preservation and access. The treatment of the objects in the American Ethnology Collection is the highest shared priority for the Anthropology and Conservation departments. The project has been reviewed by the Curator of Anthropology, who will authorize all treatments.

DMNS provides the following supporting documentation for this grant proposal:

- A list of objects organized by type: clothing and accessories; cradleboards; musical instruments and toys; *Tihu* (Kachina or Katsina); household items; horse gear and travel; and weapons (Appendix D).
- An overview of the materials occurring in each of the above types, and a summary of condition issues for these materials, as they occur within the DMNS American Ethnology Collection (Appendix E).
- Condition reports, treatment proposals, and digital images for eight objects that are representative of the American Ethnology Collection (Appendix F).
- A supporting list of supplies for the treatments (Appendix C) and references (Appendix H).

The treatment plans were designed and will be implemented by DMNS Conservator Jude Southward and Contract Conservator Jessica Fletcher. Both conservators have extensive previous treatment experience with the materials of which the collection is comprised and the condition issues associated with these materials. Additionally, they have experience with using the treatment supplies listed in Appendix C. All treatment plans are thoughtful and have informed respect for the cultural property and the people who created it. The plans follow guidelines in the American Institute for Conservation's (AIC) *Code of Ethics* and *Guidelines for Practice*, and the *Commentaries to the Guidelines for Practice* (AIC 2015). Treatment plans are informed by standards in the field and will be customized to meet the needs of each object. The plans include the use of conservation-approved supplies that have been chosen for their good long-term aging properties and with consideration to avoid impeding future examinations, treatments, scientific investigations, or functions. Object examination techniques will focus on visual and microscopic methods. Testing of materials to inform a specific treatment plan will be implemented with discretion for sampling location and extent. Compensation for loss will be recorded in treatment documentation and conservators will ensure that the compensation can be detected by common examination methods; compensation will not modify, remove or obscure original material, and will be reversible to the greatest possible degree. Detailed condition examinations, treatment proposals, and conservation treatment reports, with associated digital imaging documentation, will be generated directly into the Museum's KE EMu collections database. It is the Museum's standard practice to also maintain a permanent hard copy on archival paper of all treatment documentation and project records in the DMNS archives. DMNS is confident that the AEC-Treatment project will be successful as it models conservation activities that are currently being implemented as part of a 2012 IMLS-CPS Oceanic Collections rehousing project (IC-05-12-

0023-12). The original scope of the Oceanic Collections project called for condition examinations and reports to be completed for each object prior to rehousing. It became clear that many objects would require stabilization treatment before customized storage mounts could be fabricated. Following the guidance of the program officer on a change in process to conduct the conservation stabilization treatments concurrent with rehousing, DMNS documented the change in process in the interim report submitted to IMLS on May 31, 2015. As a result of the change in process, conservators now complete detailed condition examinations, treatment proposals, and the conservation treatment all in a sequenced step, before the object is returned to the Anthropology Workshop for a customized storage mount. DMNS has determined that this sequence is more efficient and reduces object handling because it prevents the need for new mounts after a treatment has altered the shape, level of completeness, and/or consideration of fragile areas for the object.

Treatment time estimates for this project are based on condition issues identified in the SAT collection condition assessment, the DMNS Conservator's and Contract Conservator's years of experience treating similar American Ethnology Collection objects, and the current model for treatment now being implemented for the Oceanic Collection. DMNS expects to complete approximately 125 objects per year, anticipating that some objects will only take a few hours, for instance reattaching a single feather, while other treatments such as stabilizing unwoven basketry elements, will be more time consuming. The new process being used for the Oceanic Collection has resulted in 80 objects being treated in a 6-month period. DMNS is assured that treatments and documentation for 375 objects can be completed in a three-year period. The Conservators will start in the first year with clothing and accessories; move to cradleboards and household items; and finish with *Tihu*, musical instruments and toys, horse gear and travel, and weapons. Two trained volunteers will assist the Conservators by stabilizing beadwork using stitched repairs. DMNS has discussed the project treatments and proposed supplies with other conservators (G. Laurin, Personal Communication 2015).

Prior to conservation treatment, the objects will be unpacked in the Anthropology Workshop. The Anthropology Collections Manager will complete an initial visual examination for insect infestation. If insect activity is noted, the object will be immediately isolated and pest eradication effected by the DMNS Conservator following low temperature methods (Strang and Kigawa 2009). The objects will then be moved to the Conservation Lab where the stabilization treatments will take place. The objects will be returned to Anthropology for mount making and rehousing into new cabinets. The Anthropology Collections Manager will supervise all moves and inventory updates. Staff and volunteers use nitrile gloves and Tyvek lab coats when working with collections that may have been treated with arsenic.

The new closed cabinets, which are offered as part of the institutional cost share of this grant, will be manufactured by Delta Designs Ltd. (Appendix C). They will provide a high level of protection against agents of deterioration. The 16 cabinets and 184 accompanying drawers will be constructed of powder-coated steel. Powder-coating is a recommended finish for storage cabinetry (Hatchfield 2002). The gauge of steel provides the structural strength required for the combined weight of cabinets, drawers, and contents without exceeding floor loading capacities. Each cabinet will have lockable doors and silicone gaskets.

Specific Evaluation Activities: The success of the project will be assessed using a mixed methods approach. As a result of the project, optimal conditions for collections care will be achieved for these high-priority and high-risk objects, and access to the collections for the public, researchers, and American Indian tribes will be improved. The Evaluation Project Manager along with the Project Director will implement the evaluation.

Qualitative Evaluation (Process and Outcome). A questionnaire will be administered to project volunteers and staff annually and at the end of the grant period to capture feedback regarding to what extent the project activities are accomplishing the goals. Descriptive responses will help the project team to gauge changes in knowledge, skills, attitudes, and conditions; lessons learned; project achievements and their value; and broader impacts of the project. Questions will relate to items such as improved physical and intellectual stewardship, reduced risks to the collections, improved access for various audiences to the collection, and increased knowledge about American Ethnology cultures and the importance of conservation. Three previous IMLS-funded projects have included a similar process evaluation, one for a Museum-wide collections risk assessment, one for a paleobotany rehousing project, and one currently underway for a Plains Nations rehousing project.

These evaluations reaffirmed, among other things, that the one-day training workshop and the volunteer training manual are essential project components.

Quantitative Outcome Evaluation. A rubric will assess the following objectives and measurable benchmarks:

Performance Goal	Performance Measure	Indicator/Instrument/Deliverables
Improve preservation, conservation, and care of the Nation’s content and collections*	375 objects undergo conservation stabilization treatment with associated documentation	# of objects treated
		# of condition reports, treatment proposals, and treatment reports w/ associated images
		# of blog entries
		# of blog hits
Improve DMNS stewardship by ensuring long-term preservation and access to objects within the American Ethnology Collection	Information will be shared with the public, American Indian tribes, and researchers through a variety of mechanisms	# of images available through KE IMu and Luna Insight
		# of people seeing collections in behind-the-scenes tours
		# of people learning about the project and the collection through events such as the <i>Be A Catalyst</i> series
		# of professionals learning about the project and the collection through activities at the SPNHC conference to be hosted in Denver in 2017
		# of print and digital articles published and/or submitted for publication
		# of professionals, non-professionals or pre-professionals, volunteers, and staff impacted by the project
* Standard performance goal for IMLS MFA Collections Stewardship projects		

2. Key Personnel Responsible for Planning, Managing, and Implementing the Project: Project staff time is accounted for in the budget request or the cost share (also see attached key personnel list and resumes).

Jude Southward, Project Director, Conservator/Avenir Conservation Center Chair, (375 hours annually, 18% FTE) will oversee project activities, including: hiring the Contract Conservator; ordering conservation supplies; completing conservation treatments; orienting personnel to project activities; supervising volunteers; and disseminating project results with the Contract Conservator and Curator. Ms. Southward joined DMNS as an objects conservator in 1993. She has 24 years of combined conservation experience from the Canadian Conservation Institute, Smithsonian Museum Conservation Institute, American Museum of Natural History, and DMNS. At DMNS, she has worked on 13 IMLS grants to improve collections stewardship, serving as director on 11. Southward received an M.A. in Art Conservation from Queen’s University, Canada and a B.A. and an M.A. in Anthropology.

Jessica Fletcher, Contract Conservator (1,903 total hours, approx. 33% FTE) will perform conservation treatments on the objects. She has worked on many projects at DMNS since 2008 involving the treatment, storage, and display of ethnographic objects. She was responsible for preparing the representative condition reports and treatment proposals included in Appendix F. Ms. Fletcher has been a practicing conservator for 15 years, including previous grant-funded work at DMNS. Fletcher holds an M.A. in Art Conservation from Buffalo State College with a focus on ethnographic and archeological objects. She received her B.A. in Studio Art and Anthropology. See letter of commitment in Appendix G.

Dr. Chip Colwell Curator of Anthropology (42 hours annually, 2% FTE) will teach staff and volunteers about the American Ethnology Collection at the one-day workshop, will authorize final object treatment proposals, and contribute to written project dissemination. Dr. Colwell joined DMNS in 2007. He received a Ph.D. in Anthropology from Indiana University. He has worked in various museum settings, including the Arizona State Museum, Milwaukee Public Museum, and Indiana University’s Museum of World Cultures.

Melissa Bechhoefer, Anthropology Collections Manager (42 hours annually, 2% FTE) will move the collections and update inventory locations. Ms. Bechhoefer joined DMNS in 2012, is responsible for the care, maintenance,

and facilitation of the anthropology collections. She has a B.A. in Archaeology and Geology and received an M.S. in Museum and Field Studies from the University of Colorado, Boulder.

Staff Photographer Rick Wicker (21 hours, 1% FTE) will shoot professional project and object images to be published in the dissemination activities. Mr. Wicker has worked as a photographer for the Museum for a combined total of 16 years and additionally has experience in photography for art galleries and publications.

In collaboration with project staff, Conservation Volunteers (192 hours annually) will stabilize beadwork and link object documentation images with treatment records in the KE EMu database. In the last twenty years, volunteers have been an integral part of all the Museum's IMLS projects to complete surveys, rehouse collections, and organize collections management data. Volunteers on the proposed project will be recruited from those already working in the Conservation department.

Maureen Shuley, Volunteer Services Coordinator (42 hours annually, 1% FTE), will coordinate scheduling for volunteers. Ms. Shuley joined DMNS in 1997 and handles volunteer recruitment, scheduling, and coordination of volunteer events. DMNS has a robust volunteer services department due to the fact that volunteers are essential to the Museum's capacity to carry out much of its work. Our success in using volunteers in specialized capacities can be attributed to the support and training DMNS is able to provide.

In addition, the project benefits from other staff contributions whose time is not included in the institutional cost share. Evaluation Project Manager Ellen Roth will complete the project's evaluation. Image Archivist Rene O'Connell will contribute to the volunteer training manual and train Conservation Volunteers to upload images in the KE EMu database. Administrative Manager Veronika Hall will oversee tracking of grant expenditures. Kelly Tomajko, Director of Collections Operations, will order and oversee installation of cabinets.

3. Project Sequencing: A three-year project period beginning on 10/1/16 is proposed. The project is divided into preparation and administration, collections management, conservation, dissemination, and evaluation activities (each of which is described in III.1. above). Some of these activities will happen concurrently, as detailed in the Schedule of Completion. Conservation activities will be sequenced to start with clothing and accessories; moving to cradleboards and household items; and finishing with *Tihu*, musical instruments and toys, horse gear and travel, and finally, weapons.

4. Financial, Personnel, and Other Resources Needed to Complete the Project: The project cost of \$307,046 includes \$149,975 requested of IMLS and \$157,071 in non-federal match (\$45,718 cash; \$111,353 in-kind). The Museum's cash match is for cabinets (\$44,968) and conservation supplies (\$750); the in-kind contribution is comprised of personnel (salary and fringe) totaling \$55,391, volunteer time valued at \$14,688, and \$29,001 in indirect costs. The funds requested from IMLS are entirely for a Contract Conservator's salary (\$123,695), and associated indirect costs (\$26,280).

5. Tracking Progress: Key project staff will meet monthly to review progress against the schedule of completion. This process will facilitate timely adjustments to keep project activities on track. The DMNS quarterly billing cycle provides another opportunity to compare actual expenditures to projected budget match.

6. Sharing of Project Results: Results of the project will be broadly disseminated during and after the project's completion through articles in the DMNS member magazine, *Catalyst* (delivered to more than 60,000 member households), and the Research and Collections Division Newsletter, and through a photographic blog on the DMNS website. The project staff will submit an article for potential publication to a professional journal such as *Collection Forum* or *Collections Journal*. The blog will be maintained for public viewing after the project ends and digital images will be permanently available through Luna Insight and KE IMu, the Museum's two publically accessible online collection databases. We will provide tours of the project, and new conservation lab and collections facility for conference attendees and prepare a paper for considered presentation at the 2017 SPNHC conference hosted by DMNS in Denver. Results may also be presented at a DMNS *Be A Catalyst* donor event. Knowledge about the project will be shared through regular behind-the-scenes tours.

SCHEDULE OF COMPLETION

Project Year:	Year 1											
	2016			2017								
Calendar Year:	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
PREPARATORY AND ADMINISTRATIVE ACTIVITIES												
Director of Collections Operations orders new powder-coated steel closed storage cabinets and drawers manufactured by Delta Designs Ltd. Cabinets and drawers are installed.												
DMNS Conservator orders supplies for conservation treatments.												
Volunteer Training Manual is updated by the Conservator, Image Archivist, and Volunteer Services Coordinator.												
Volunteer Services Coordinator hires and schedules project volunteers.												
One-day workshop orients project staff & volunteers: Conservator covers schedules, activities, safety, and conservation bead stabilization treatment; Curator introduces the AEC Collection; Image Archivist covers DMNS procedures for linking examination records, treatment proposal, and treatment reports to associated images in KE EMu.												
Administrative Manager tracks grant and cost share expenditures, and information for IMLS reporting.												
Project Director creates permanent records of all products for the DMNS Archives.												
Project Director writes interim and final reports, and submits reports to IMLS.												
CONSERVATION STABILIZATION TREATMENT ACTIVITIES												
DMNS Conservator hires contract conservator Jessica Fletcher.												
Curator of Anthropology authorizes all treatment methods and materials, and signs treatment proposals.												
DMNS Conservator and contract conservator complete conservation stabilization treatments (generating all associated documentation directly into KE EMu, including examination reports, treatment proposals and reports, and associated before, during, and after digital images) starting with clothing and accessories, moving to cradleboards, and household items, and finishing in the third year with <i>Tihu</i> (kachina), musical instruments and toys, horse gear and travel, and weapons. Volunteers stabilize beadwork												
Photographer shoots digital images of project activities and select objects for blog and publications.												
Conservators enter all conservation documentation directly into KE EMu collections database. Volunteers link all digital images to the documentation in KE EMu.												
Image Archivist and Volunteers link select records to KE EMu and Luna Insight for public accessibility.												
COLLECTIONS MANAGEMENT ACTIVITIES												
Collections Manager unpacks and moves objects into conservation lab for stabilization treatment, moves them back into Anthropology Workshop for mount-making, and finally into cabinets. Inventory changes are tracked in KE EMu.												
Curator of Anthropology curates any detached fragments and historic documentation.												
ACCESS AND DISSEMINATION OF PROJECT RESULTS												
DMNS Conservator posts blog entries.												
DMNS hosts 2017 SPNHC Conference (June). Conservators prepare and submit abstract to present project at the conference. DMNS staff provide tours of the new Avenir Collection Center and project to conference attendees.												
Conservators write articles for DMNS publications and share project at events such as <i>Be a Catalyst</i> lecture series.												
Conservators and Curator of Anthropology submit article for potential publication to academic journal.												
DMNS staff conduct ongoing behind-the-scenes tours of the project.												
EVALUATION ACTIVITIES												
Project Director tracks quantitative deliverables via assessment rubric.												
Evaluation Project Manager administers qualitative questionnaire.												
Evaluation Project Manager synthesizes and analyzes evaluation data.												

SCHEDULE OF COMPLETION

Project Year:	Year 2												
	Calendar Year: 2017			2018									
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
PREPARATORY AND ADMINISTRATIVE ACTIVITIES													
Director of Collections Operations orders new powder-coated steel closed storage cabinets and drawers manufactured by Delta Designs Ltd. Cabinets and drawers are installed.													
DMNS Conservator orders supplies for conservation treatments.													
Volunteer Training Manual is updated by the Conservator, Image Archivist, and Volunteer Services Coordinator.													
Volunteer Services Coordinator hires and schedules project volunteers.													
One-day workshop orients project staff & volunteers: Conservator covers schedules, activities, safety, and conservation bead stabilization treatment; Curator introduces the AEC Collection; Image Archivist covers DMNS procedures for linking examination records, treatment proposal, and treatment reports to associated images in KE EMu.													
Administrative Manager tracks grant and cost share expenditures, and information for IMLS reporting.													
Project Director creates permanent records of all products for the DMNS Archives.													
Project Director writes interim and final reports, and submits reports to IMLS.													
CONSERVATION STABILIZATION TREATMENT ACTIVITIES													
DMNS Conservator hires contract conservator Jessica Fletcher.													
Curator of Anthropology authorizes all treatment methods and materials, and signs treatment proposals.													
DMNS Conservator and contract conservator complete conservation stabilization treatments (generating all associated documentation directly into KE EMu, including examination reports, treatment proposals and reports, and associated before, during, and after digital images) starting with clothing and accessories, moving to cradleboards, and household items, and finishing in the third year with <i>Tihu</i> (kachina), musical instruments and toys, horse gear and travel, and weapons. Volunteers stabilize beadwork													
Photographer shoots digital images of project activities and select objects for blog and publications.													
Conservators enter all conservation documentation directly into KE EMu collections database. Volunteers link all digital images to the documentation in KE EMu.													
Image Archivist and Volunteers link select records to KE EMu and Luna Insight for public accessibility.													
COLLECTIONS MANAGEMENT ACTIVITIES													
Collections Manager unpacks and moves objects into conservation lab for stabilization treatment, moves them back into Anthropology Workshop for mount-making, and finally into cabinets. Inventory changes are tracked in KE EMu.													
Curator of Anthropology curates any detached fragments and historic documentation.													
ACCESS AND DISSEMINATION OF PROJECT RESULTS													
DMNS Conservator posts blog entries.													
DMNS hosts 2017 SPNHC Conference (June). Conservators prepare and submit abstract to present project at the conference. DMNS staff provide tours of the new Avenir Collection Center and project to conference attendees.													
Conservators write articles for DMNS publications and share project at events such as <i>Be a Catalyst</i> lecture series.													
Conservators and Curator of Anthropology submit article for potential publication to academic journal.													
DMNS staff conduct ongoing behind-the-scenes tours of the project.													
EVALUATION ACTIVITIES													
Project Director tracks quantitative deliverables via assessment rubric.													
Evaluation Project Manager administers qualitative questionnaire.													
Evaluation Project Manager synthesizes and analyzes evaluation data.													

SCHEDULE OF COMPLETION

	Project Year:		Year 3										
	Calendar Year:		2018			2019							
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