EXAMPLE FOR FY2013 NGGDPP GRANTS PROGRAM ANNOUNCEMENT
PLEASE NOTE: *Links, etc. found in this document are for example use only.*

ATTACHMENT A – APPLICATION FORMAT

Application summary sheet	
Name of the State Geological Survey	**ABC Geological Survey**
Project Title	"ABC Geological Survey Data Preservation Program 2013 – Rescuing Unconsolidated Sediments"
Principal Investigator(s)	Joy Frank ABC Geological Survey 6th Ave and Kipling Street (PO Box 2645) Rangely, ABC 12345 (303-236-9875), (303-236-3927), (joy.frank@ABC-GS.edu)
Authorized Institutional Representative	Maria Hoff ABC Geological Survey – Grants Section 6th Ave and Kipling Street (PO Box 2645) Rangely, ABC 12345 (303-236-6666), (303-236-8822), (maria.hoff@ABC-GS.edu)

To which Grant Objectives does proposed work relate?
(Please check all that apply and apply the prioritization criteria.)

Check all that apply	**Prioritize objectives** (On a scale of 1-4, with 1 being top priority, indicate the ranking of checked Grant Objectives.)	**Grant Objectives**
☐		Inventory
☐		Create metadata
☐		Create or update digital infrastructure
☒	1	Rescue data

Amount of Federal Financial Assistance Requested						
Objective	*Salaries ($)*	*Fringe Benefits ($)*	*Travel Expenses ($)*	*Other Direct Costs ($)*	*Indirect Costs ($)*	*Total ($)*
1						
2						
3						
4	$16,308	$1,142	$0	$3,000	$6,544	$26,994
TOTAL	$16,308	$1,142	$0	$3,000	$6,544	$26,994

Proposed Start Date:	**June 15, 2013**	
Duration	12 months. No awards are issued for less than or more than 12 months.	
Has this application been submitted to another agency for funding?	**N/A**	
Please list information for any active NGGDPP-related grant/award.	*Year of Grant*	*Project title/brief description of work*
	2012	"ABC Geological Survey Data Preservation Program 2012 – Rescuing Unconsolidated Sediments"

Introduction

Abstract: Project description and summary of approach	In 2009, the ABC Geological Survey identified approximately 60,000 individual sediment samples of unconsolidated materials that needed to be preserved. NGGDPP grants have supported the processing of 35,000 of those samples over the past three grant periods. Today, there are approximately 25,000 remaining samples to be preserved. The ABC Geological Survey is proposing to preserve 15,000 sediment samples by bagging, labeling, and placing them in core boxes. ID numbers will be verified from the locational information in the gamma-ray log database; and the database will be updated as the samples are preserved. Each sample will be repackaged into a whirl-pak bag and labeled on the outside, as well as internally using a tag label. The bags will be stored in core boxes and labeled with both ABC Geological Survey standard inventory tracking QR codes and information that identifies the specific log-sample number. The accompanying geophysical (gamma-ray) log database will be updated to document the preservation of these samples. The samples are currently stored in open paper cups in a deteriorating, un-weatherized off-site building. Moisture is damaging the integrity of the paper cups and many samples have been contaminated by insect and rodent droppings. A number of the cups have spilled, rendering the samples useless. Our preservation efforts will produce inventory records that will be entered into the USGS National Digital Catalog (NDC) and the internal inventories of the ABC Geological Survey data collections. The sample information will be cross-referenced to existing paper and digital data records, creating a more complete and accessible dataset.
Project goals (Result or achievement toward which this effort is directed.)	To rescue and preserve sediment samples by identifying, bagging, labeling, and boxing them before they become unusable. The physical sample inventory will then be linked to the gamma-ray log database.
How does this project address the State's long-range data-preservation plan?	Part of the ABC Geological Survey's core mission is to conduct basic geological research and disseminate the findings of this research. Our long-term data preservation plan helps to fulfill this mission by preserving physical samples and by organizing and disseminating data. ABC Geological Survey staff and the public will have access to the preserved samples upon request; the digital data will be made available through online access. This will allow for individual interpretation and analysis. Preservation of the samples is imperative, as it is too costly to collect new samples in conducting future research.
Anticipated results and products	Once the sediment samples have been properly preserved, they will be made available for onsite examination upon request. The final product will be boxed sediment samples linked to the gamma-ray log database. Information pertaining to the sample sets and geophysical logs will be available as a GIS layer on the ABC-Map website (http://maps.ABC-GS.edu) hosted by the ABC Geological Survey.
Estimated total number of metadata records that will be submitted under this project, if applicable	The numbers of individual samples per physical sample set varies greatly. On average there are 25 cups per set. The total number of sample sets or wells could range from 500 to 750.

Project justification	
Justification for proposed project.	The ABC Geological Survey has over 60,000 individual sediment samples in its collection. The samples represent unconsolidated materials collected from over 2,200 boreholes drilled throughout the state. In most cases, there is a geophysical log associated with each well. The samples reside in a deteriorating building with unsafe working conditions; limiting or preventing access and examination of the samples. NGGDPP funds were used during the 2010, 2011, and 2012 grant periods to rescue the samples by organizing,

	repackaging, and cataloguing them. To date, approximately 35,000 samples have been processed. Processing the samples markedly reduces the storage space needed for the collection as they are re-shelved. Their cataloging in an electronic inventory database, together with metadata, ensures easy accessibility. This year funds are being requested to continue the rescuing, processing, and cataloging of additional samples. Continued rescue and preservation of the sediment samples will provide discoverability and access to a valuable suite of data that has heretofore never been available to the public. We expect that their use and study will follow that of the highly successful petroleum well cuttings sample collection catalogued in the ABC Geological Survey's Petroleum Database Management System (http://ABC-GS.edu/PDMS/). This database provides the public on-line access to the location, data, and well histories of over 70,000 petroleum wells. The ABC Geological Survey also maintains a collection of cores for 972 of those petroleum wells in its sample repository. An average of 350 individuals, outside of the ABC Geological Survey staff, gain access to the core and cuttings collection, annually. We expect that, when the sediment samples catalog is provided on-line, a like number of investigators will seek access and use of that collection.
If proposing to catalog or rescue data that might reasonably be held or cataloged by another agency (e.g., oil and gas commission) provide solid justification why it is in this proposal.	The ABC Geological Survey collects, archives, and provides access to samples, data and information representative of the geology of ABC. The ABC Geological Survey is the sole repository in the State for these materials.
Who are the State's primary customers?	In addition to ABC Geological Survey scientists, potential users of these unconsolidated sediment samples include water- and mineral-resource geologists, and environmental, planning, and public health professionals. In some cases, academia and government agencies, and the general public, may request access to the samples and the accompanying archived data.
How often are the collections being accessed by those customers?	The sediment samples are currently used by ABC Geological Survey scientists for ongoing mapping projects; however, the samples are rarely accessed by external customers due to limited accessibility and lack of knowledge of their existence. By preserving these samples and updating digital databases, the ABC Geological Survey will be in a position to make the samples more readily available for examination by our staff and customers.
What are the societal benefits derived from the preserved data. Please be specific and include type of data and how it is used, cost savings, lives saved, etc.	These sediment samples are analyzed and used in the production of bedrock geology, 3-D surficial geology, hydrogeologic, environmental, and seismic risk maps and models. These resources are used by mineral-resource, water-resource, environmental, and public health professionals as well as urban planners to determine mineral resources and areas prone to flooding, sediment liquefaction, subsidence, and groundwater contamination. Information from these sample sets and the accompanying geophysical logs have been instrumental in the groundwater exploration program and development of a new municipal well field for a town in northwestern ABC.

Preliminary results and prior work – This will help panel members understand how the current proposal relates to previous work. Do not assume review panel is familiar with prior work and accomplishments.

NGGDPP Collection ID	*Brief Collection Name*	*Number of collection inventories or metadata*	*Year uploaded*	*Progress Summary (Did work include digital infrastructure or*

		records uploaded to the National Digital Catalog in previous years		*rescuing data at risk?)*
P2258	Unconsolidated sediment samples	~750	2012	The physical sample catalog contains index number, depth, and driller's notes. The sample record is linked to additional location and spatial information in geophysical log database through an index number. The individual log information is loaded into the National Digital Catalog.

Grant Objective 1	**Inventory collections of geological or geophysical data**	**PRIORITY _____**
Name of Collection	*Brief description of collection contents and estimated number of items*	

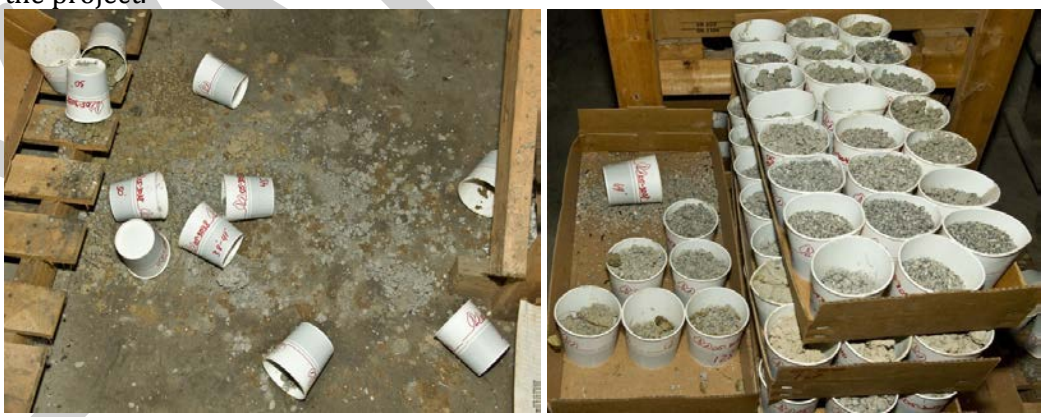
Grant Objective 2	**Create metadata for individual items in inventoried data collections**	**PRIORITY _____**

NGGDPP collection ID	*Brief collection name*	*Total # of items in collection*	*Number of data elements uploaded to the National Digital Catalog in previous years*	*Number of data elements being prepared for uploaded to National Digital Catalog in FY 2013*	*% of total items that are in the Catalog*

For applications to create metadata, please provide the following:	
Summary of process by which the metadata will be submitted to the catalog	
Quality assurance processes used to check the data before submission to the catalog	
Summary of the State's plan for integrating periodic catalog updates into business processes	
Summary of technical plan for how new or modified records in the catalog will be identified and updated	

Grant Objective 3	**Create or update digital infrastructure**	**PRIORITY _____**
Paper →Digital conversion	List the type and amount of paper records to be scanned/digitized:	
	type	*amount*
Digital →New Digital format	List the type and amount of digital records to be converted:	
	type	*Amount*
Description of any other kinds of data conversion	List the type and amount of records to be converted:	
	type	*Amount*
Summary of plan for producing metadata, for each item converted to add to the National Digital Catalog		

Grant Objective 4	**Rescue data at risk** (See note below.)	**PRIORITY _____**
What is in need of rescue?	List the type and amount of items to be rescued:	
	type	*amount*
	Unconsolidated-sediment samples stored in deteriorating paper cups	There is a total of 25,000 unconsolidated sediments that still need to be rescued. For this project we propose to rescue 15,000 samples which will leave 10,000 samples that still are in need of rescue.
What is the unique and significant value of the data or collections at risk?	These sediment samples represent the work of four ABC personnel from the mid-1980s to present day. These samples document the unconsolidated materials of over 1900 locations throughout the state of ABC, and are irreplaceable. The samples are from private and public water wells, monitoring wells, auger holes, and stratigraphic test holes.	
What are the physical conditions which threaten the data or collections?	The sediment samples are currently stored in open paper cups in an un-weatherized deteriorating offsite building. Moisture is damaging the integrity of the paper cups and the samples have been contaminated by rodent droppings and dead insects. The ABC Geological Survey is in the process of upgrading the lighting and shelving in the building to reduce the spills and increase the accessibility of the samples.	
How would the rescue of these data	**Sediment samples in the Foundry Building (Rescue data)** The ABC Geological Survey maintains a collection of unconsolidated sediment sample sets,	

or collections be appropriate for NGGDPP support?	similar to the rock core library. These samples were collected from auger holes and wells drilled in unconsolidated materials. The sediment (gravel, sand, silt, and clay) were collected in open-top paper cups, labeled, and stored in cardboard trays for drying. Many of these sediment samples have associated geophysical log and driller's well log available for public use. However, because the sediment samples are not stored properly they remain inaccessible to the public. Cups have spilled, and are contaminated with dead spiders and rodent droppings rendering some samples useless (fig. 1). Due to the sheer volume of samples and limited storage space, the cardboard trays of cups are stored in various locations away from the main ABC Geological Survey building. Initially, we estimate there were approximately 60,000 sediment cup samples that needed to be repackaged and inventoried (fig. 2). Today, after three NGGDPP project cycles, there are approximately 25,000 cup samples remaining. During this project cycle we propose to repackage and inventory approximately 15,000 sediment samples. These sample sets correspond to planned project areas and will assist researchers and the public in developing geologic maps and GIS databases. **Logistics** Approximately 15,000 sediment sample cups will be moved from the ABC Geological Survey storage building to the ABC Geological Survey Materials Testing Facility where there is available work space to preserve and inventory these materials. Materials will be preserved by repackaging each sample into a whirl-pak bag, labeling the bag internally and externally, storing the bags from each sample set in core boxes (fig. 3). Sediment samples will be inventoried and entered into the ABC Geological Survey tracking system databases. Repackaged sediment samples will be cross referenced with records in the gamma-ray log database. Upon completion of preservation and inventory, the sediment core boxes will be moved to a single archive location, at which time geologists, consultants, and the public will have access to the physical materials and associated data for examination (fig. 4). All procedures will be monitored to assure accuracy, quality control, and timely completion of the project.  Figure 1. Examples of spilled sediment samples. The open cups spill because (1) the cardboard trays are deteriorating, (2) they are knocked over when removed from shelves, and (3) unauthorized people have entered and vandalized the contents of the building.

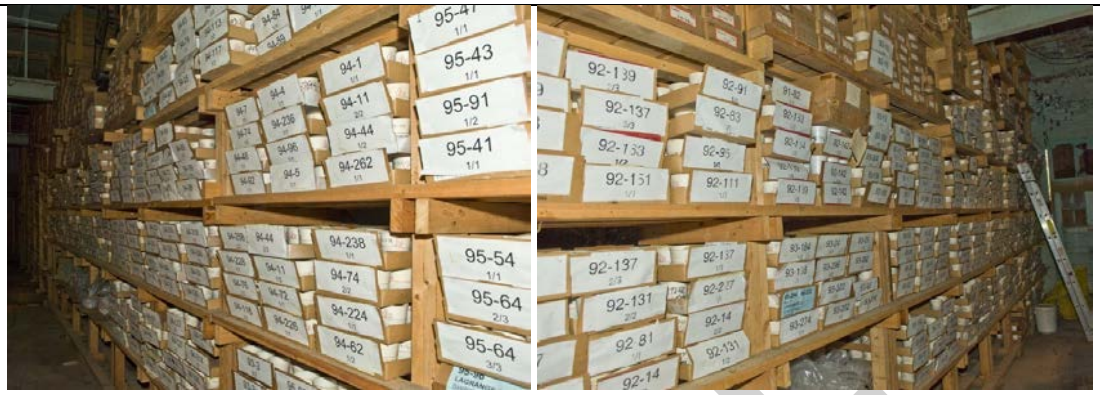


Figure 2. An estimated 25,000 sediment cups samples remain stored in trays for repackaging and inventorying

Figure 3. Sediments in open-top cups (right) are repackaged in whirl-pak bags (left), thus preserving them from contamination and spilling. The repackaging of the samples also conserves considerable space.

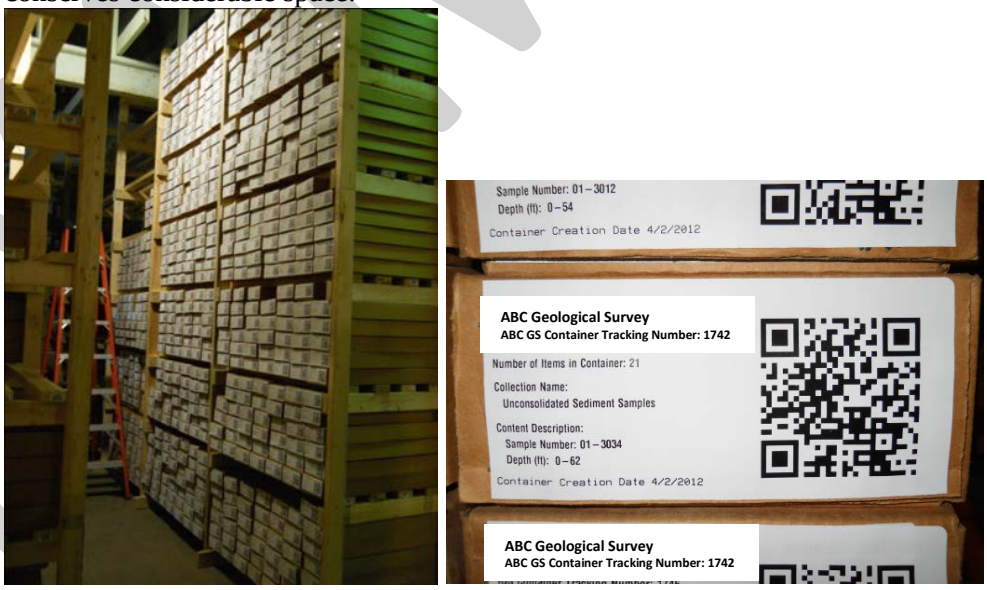


Figure 4. Repackaged sediment samples in new core boxes conserving space (left); example of new sediment core box label linked to the IGS inventory database using the QR code (right).

Summary of plan for producing metadata, for each item	The gamma-ray log database contains the metadata for each well and auger hole. The link between each sediment sample and the database will be checked and updated as necessary. Information from this database will be available and referenced in the catalog.

rescued, to put into the catalog	
NOTE:	*Typical grant funding requests are centered on supplies such as sample storage boxes/containers and the human-power requirements to physically rescue data and samples that are in immediate risk of deterioration or loss. Requests for building repair or maintenance, facility construction, or storage rental are not acceptable.*

Detailed Budget

Grant Objective _4_

Name	Position/ Role	Time (in hours)	Student? Yes/No	Current Pay rate ($/hr)	Current Fringe Benefit Rates (%)	Total Cost	Federal funds	State funds
Joy Frank	Assistant Director for Technical Services, Principal Investigator	42	No	$30.31	42.31%	$1,812	$0	$1,812
Jean George	Geologist, Database and check project	31	No	$20.23	42.31%	$892	$0	$892
Kelly Rudloff	Geologist and Section Head, Database quality control and query database	31	No	$29.75	42.31%	$1,312	$0	$1,312
Rob Long	Geologic Technician, Project assistant	312	No	$15.54	39.93%	$6,784	$0	$6,784
Pat Kremer	Data Archivist, Project assistant	720	No	$12.65	7.00%	$9,746	$9,746	$0
Hourly employee	Technician, Project assistant	720	Yes	$10.00	7.00%	$7,704	$7,704	$0
Hourly employee	Technician, Project assistant	720	Yes	$10.00	7.00%	$7,704	$0	$7,704
				Travel Expense:		$0	$0	$0
				Other Direct Costs:				
					Supplies	$5,000	$3,000	$2,000
					Equipment			
				Total Direct Costs		$40,954	$20,450	$20,504
				Indirect Cost (attach documentation)		$13,105	$6,544	$6,561
				GRAND TOTAL		$54,059	$26,994	$27,065

Budget Justification

Travel	
Purpose of trip(s)	
Number of travelers	
Number travel days	
Per diem rate	
Mileage rate	
Cost of airfare or other travel costs necessary to proposed work	
Justification for airfare cost	

Supplies	
Item	*Cost*
Whirl-pak bags	$2,000
Tags and labels	$1,450
Core boxes	$1,550

Equipment		
Item	*Cost*	*Detailed justification to show how specific software and/or hardware are unique to NGGDPP and is not duplicated or already exists in the State. Attach vendor quotes for equipment. (Vendor quotes do not count against page limit.)*

Contractual Services			
Task or problem for which services will be used.	*Estimated billable time*	*Rate of compensation to contractor*	*Job title(s) of contractors*

Project Personnel Justification and Expertise *(Include all personnel including supervisory/oversight and management personnel who are in proposed budget. This section replaces the need for resumes or CVs and will not be counted against page limit.)*		
Name	*Role and Responsibility*	*Description of expertise relevant to their proposed role and responsibility listed on subsequent budget worksheet.*
Joy Frank	Principal Investigator, Assistant Director for Technical Services	Dr. Frank has served the ABC Geological Survey in previous roles as Cartographer, Head Cartographer, Publications Manager, and Head of Information Technology Services. She has also been the Principal Investigator on the five previous projects sponsored by the NGGDPP. For this project Dr. Frank will define

		work tasks, review work completed, assist with the discovery of samples, write reports, and will oversee the activities of the personnel assigned to this project.
Jean George	Geologic Mapping Section Geologist, Database and check project	Ms. George, a geologist in the Geologic Mapping Section, maintains the gamma-ray log database. She will cross-check recent mapping projects to identify sediment samples to be repackaged. She will cross reference rescued sample sets with the record in the gamma-ray log database. She will query the database and provide up-to-date data for the sample-log sets layer on ABC-Map.
Kelly Rudloff	Geologic Mapping Section Geologist, Database quality control and query database	Dr. Rudloff is a geologist and head of the Geologic Mapping Section. She will quality-check sediment sample data entered into the gamma-ray log database, query the database, and identify wells with samples and gamma-ray logs. The results will be made available on the ABC Geological Survey website.
Rob Long	Geologic Technician, Project assistant	Mr. Long will move approximately 1,000 sediment sample cups at a time to and from the ABC Geological Survey Foundry Storage Building to the ABC Geological Survey Materials Testing Facility where there is available work space to preserve and inventory these materials. He will also assist in preserving the materials.
Pat Kremer	Project assistant, Data Archivist	Ms. Kremer has a bachelor's degree in geology, was previously employed by the ABC Geological Survey as a full-time GIS and cartographic technician, served as an FGDC-metadata trainer for the ABC Geological Survey, and was chair of the ABC Geological Survey Metadata Committee. She has been instrumental in the previous phases of the NGGDPP funded by the USGS, wherein she undertook the initial assessment of the ABC Geological Survey resource collections (FY2007-2010). She will provide oversight as well as preserve materials by repackaging each sample into a whirl-pak bag and label and store bags in core boxes. She will inventory sediment samples and enter records into the National Digital Catalog and ABC Geological Survey tracking system databases.
Hourly employee	Project assistant, Technician	This individual will assist Mr. Long and Ms. Kremer in the preservation of materials by repackaging each sample into a whirl-pak bag, and labeling and storing the bags in core boxes.
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Other Information

Indirect Costs	
	Please include copy of indirect negotiated cost agreement with Federal Government. This document does not count against page limit.

Fringe Benefits	
	Please include copy of negotiated rate agreement or internal memo supporting proposed rates. This document does not count against page limit.