

Recommendations for Departmental Collections Policies

Background: The importance of federal policies for scientific collections

Beginning in 2005, the White House's Office of Science and Technology Policy (OSTP) and Office of Management and Budget (OMB) included in its priorities for interagency activity a call to "*focus attention on integrated support and planning for the care and use of federally held scientific collections.*" This call gave rise to the formation of an Interagency Working Group on Scientific Collections (IWGSC) under the Committee of Science of the National Science and Technology Council (NSTC). The IWGSC issued a [report](#) in December 2008 that made seven recommendations for the improvement of management, accessibility and impact of scientific collections owned by U.S. government departments and agencies. One of these recommendations focused on agency policies governing their scientific collections:

Scientific collections are actual property assets and their ownership by Federal agencies carries with it trustee responsibilities. To meet these responsibilities, agencies should have clear policies that ensure the proper management, security, and legal and ethical use of these scientific collections.

The IWGSC recommends that agencies exchange documents that describe their scientific collections policies, procedures, and best practices in order to minimize the effort needed for agencies to develop collection-specific policies and procedures.

Dr. John Holdren, Director of OSTP, reinforced the importance of this recommendation in a Policy Memo of 6 October 2010, in which he directed agencies to implement this recommendation within one year. The memo stated:

Proper policies and procedures for maintaining and preserving scientific collections are central to their value. The [IWGSC] report noted wide variation in the collections policies across agencies. Agencies are urged to share their scientific collections policies and procedures to help agencies develop best practices.

Shortly after the issuance of this Policy Memo, Congress passed and the President signed the America COMPETES Reauthorization Act of 2010. Section 104 of the Act stated:

The Office of Science and Technology Policy shall develop policies for the management and use of Federal scientific collections to improve the quality, organization, access, including online access, and long-term preservation of such collections for the benefit of the scientific enterprise.

In fulfilling their responsibilities to oversee scientific collections, each agency should design policies specific to the scope, nature, and purpose of the scientific collections they own. Each agency should formulate policies appropriate to its particular mission, collections, activities, and circumstances using the recommended elements within this document as a guiding framework. The IWGSC recognizes that no single policy template is appropriate for all collections or agencies.

This report responds to Dr. Holdren's Policy Memo and the America COMPETES Act by recommending a set of issues concerning scientific collections that should be addressed in the collections policies of all relevant federal departments, independent agencies and institutions. The IWGSC recognizes that agencies vary widely in their missions and the types of collections they manage. No single set of policies would be appropriate for all agencies or even the collections within an agency. Accordingly, the list of issues and illustrative examples presented here are offered as guidance to agencies as they develop their own policies that govern their collections. Agencies are encouraged to use this report as a template for their collections policies or to use other formats. These recommendations are meant for federally-owned scientific collections, not non-federal collections that receive federal support.

The Appendix to this report provides examples of agency policies that address each issue. IWGSC intends to make this report a 'living document' by updating these examples as agencies develop new and innovative approaches to their collections policies. Any changes to this report, other than updates to the Appendix, must be proposed to and approved by the NSTC Committee on Science.

IWGSC is exploring the possibility of creating a single web portal through which the policy documents related to scientific collections at all federal agencies will be accessible. The web portal will facilitate the process of identifying and highlighting new examples of agency policies in the Appendix.

Object-based Scientific Collections

The policy issues highlighted in this report apply to 'object-based scientific collections' (sometimes referred to collectively as 'research resources') as defined in the 2008 IWGSC report.

Scientific collections...consist of physical objects that are preserved, cataloged, and managed by Federal agencies and other organizations for research and other purposes. Scientific collections do not include art or historical objects, collectibles, or the books and documents that are stored in libraries and archives. The specimens in scientific collections were acquired as objects for scientific study, not for their aesthetic or market value as collectibles.

Agencies obtain these objects based on their current and potential scientific value in a variety of ways; primarily but not exclusively in the conduct of intramural and federally funded research projects and other legislatively authorized mission activities. In some cases, the objects may be initially considered 'project collections' (sometimes referred to as 'working collections'), under the management of research project teams. In other cases, objects are immediately designated for accessioning into 'institutional collections'. These collections are typically under the long-term direct care of federal collection management staff. In some cases they are managed and/or housed at federal agencies other than the agency that owns the collection or by non-federal entities, under contract, cooperative agreement, grant, or other arrangement. These two categories of collections are defined below.

Project collections are normally evaluated at the end of the research activity or project for which they were obtained. This evaluation determines their potential value for future research, education and exhibition to the agency, Federal Government, research community and general public. Based on this evaluation, decisions are made to:

- Deposit and retain objects in project collections for continued use for emerging research needs by those associated with the project;
- Accession objects into institutional collections to ensure their long-term preservation for access and use by both the intramural and extramural research communities and other qualified users; or
- Dispose of objects or transfer them to another organization, including those outside the Federal Government, if the agency has legal authority to do so.

1. **Project collections.** This category of object-based scientific collections can be characterized as consisting of objects that:

- a. Are primarily used and managed by the research staff associated with a project, commonly being housed in research spaces not designed for long-term collection storage;
- b. May or may not be made accessible through sample sharing or loan procedures to the research community at the discretion of those associated with the project and in accordance with agency policies;
- c. Are sometimes completely expended or consumed by destructive analytical techniques used by the research project, or for other purposes such as education that may result in their degradation or destruction; and/or

d. Are sometimes documented in non-standardized ways.

2. **Institutional Collections**. This category of object-based scientific collections consists of objects that have been identified for long-term preservation and management. Agencies place objects in institutional collections owing to their future value to the Federal Government and the intramural and extramural research communities; including, but not limited to, the staff of the original research project for which they may have been obtained. Institutional collections are critical resources for:

- Complying with federal statutes and regulations;
- Supporting agency missions;
- Validating earlier research findings;
- Recording historical conditions or events;
- Re-analysis using new technologies;
- Use as calibration standards;
- New and unanticipated research value; and/or
- Studies of well-characterized research material.

Well-managed institutional collections contain objects that:

- a. Have gone through a formal accessioning process into a collection, along with their associated documentation and archival material (e.g., notes, photographs and maps). The accession process normally includes the entry of standardized data and descriptive information about the object in an institutional database or other electronic record-keeping system;
- b. Are under the authority of collection management staff (e.g., curators, collection managers, conservators, or researchers who have been charged with collection management responsibilities) and are housed in facilities devoted to long-term collection storage;
- c. Are inventoried on a schedule determined by the agency to ensure accountability of the collection;
- d. Are physically labeled in some way with catalog numbers or other unique identifiers linked to the corresponding record in the institutional database or other record-keeping system;
- e. Are normally made available to all qualified users with certain exceptions, including reasons of national security or extreme rarity or fragility of objects;
- f. Are made available to qualified parties through formal loan procedures for research, education or exhibition; and
- g. Are normally preserved long-term except under certain infrequent conditions, described below, which may justify deaccessioning. Agencies with legal authority to deaccession selected objects that have been accessioned into an institutional collection may elect to transfer them to another interested federal agency or a non-federal organization if doing so would increase their scientific impact. If the objects are not transferred and accessioned into another institutional collection, an agency may, as a last resort, donate, destroy, or dispose of them through other means. Deaccessioning and disposal of objects in institutional collections should occur only under circumstances where their long-term management by the agency is no longer justified by their potential use. Examples of these circumstances are:
 - Living material (e.g., individuals or strains in zoos, botanical gardens, seedbanks, culture collections) which, by their very nature, involves death and disposal of individual samples and their ongoing replacement through reproduction, cultivation and culturing;

- Objects that have lost their research value due to use, accidental damage or loss of associated data, normal deterioration, or other causes;
- Objects that are consumed, in whole or in part, by essential but destructive analytical techniques. This normally requires prior explicit permission from the collection management staff; or
- Objects whose value to the owning agency has decreased over time due to changes in research priorities and directions.

Recommendations for Policy Issues to be Addressed

IWGSC recommends that all federal departments, agencies and institutions with institutional collections as defined above (hereafter referred to as 'agencies') have policies for those scientific collections that address the issues presented below. These issues have been selected because they represent standard, universal topics that all agencies should address in managing their scientific collections. Agencies may wish to address additional issues in their top-level policy documents as they deem appropriate. These agency-level policies will apply to the institutional collections in all sub-agencies and departments. Agencies may also elect to apply their agency-level policies to some or all of their project collections. IWGSC also recognizes and endorses the need to have more specific policies, procedures and guidelines that will differ among those sub-agencies and departments. Agencies are encouraged to develop those in the context of their agency-wide policies. One of the issues presented below addresses the relationship between agency-wide policies and more focused collection-specific policies.

Agencies have the flexibility to include standard operating procedures for collection management in their agency-wide policy documents, in separate procedural manuals, in collection-specific documents, or in other ways they deem appropriate.

Each description of the following issues includes a name (presented in bold font) and a brief description of each issue (presented in italics). This text is provided as guidance to agencies and does not need to be repeated in their policy documents. The Appendix to this report provides one or more illustrative examples of agency-level policies for each issue. These examples are provided only as guidance to agencies. There is no expectation that the specific text in the examples will be used by agencies in their policy documents.

- 1) **Collection Mission Statement.** *Scientific collections can serve an agency's mission in diverse ways. Agency policies should describe the role and importance of collections in the overall mission of the agency.*
- 2) **Legal authority.** *The legal and/or regulatory authority under which agencies hold and manage collections is very important and should be included in agency-wide collections policies. The legislation, regulations, or other laws related to an agency's authority to obtain, accession and deaccession collections should be listed explicitly in their collections policies.*
- 3) **Scope of agency collections.** *Agencies and their component sub-agencies and departments can own a variety of collections with highly varied content. Agency policies should specify the major collections owned by the agency and should describe the kinds of specimens/samples they contain. In addressing this issue, agencies may choose to distinguish the institutional collections from the project collections owned by the agency.*
- 4) **Organizational applicability.** *Not all organizational units within an agency may have scientific collections. The section of agency-wide policies that addresses this issue should specify the organizational sub-units within the agency to which the collections policies apply. Agencies may elect*

to include specific information on the degree to which their agency-wide collections policies apply to project collections.

- 5) **Relation of department-wide policies to collection/unit-specific policies.** *In addition to having agency-wide collections policies, agencies may elect to develop more specific policies that apply to collections held by organizational sub-units. Agencies may choose to include information concerning any differences in policies that apply to project versus institutional collections. Agencies that elect not to develop unit-specific policies may also choose to include a brief statement to that effect.*
- 6) **Delegation of authority.** *Agency policies should identify the agency officials with responsibility for carrying out policies related to collections and should specify their responsibilities.*
- 7) **Standards for managing collections, including quality assurance and quality management programs.** *Agency policies should specify any overall management standards (e.g., ISO) or other quality assurance or quality management systems that govern agency-wide collections operations.*

The following subsections describe the policy issues related to the different stages of collection processing and management:

- a) **Obtaining and depositing objects prior to accessioning.** *This sub-section should present agency policies for managing objects before they are accessioned formally into institutional collections. Agencies may elect to use this sub-section to describe their policies governing project collections or other objects collected during normal agency activities but are not subsequently retained in their institutional collections (e.g., objects collected during surveys of biological diversity).*
- b) **Accessioning.** *Agencies should use this sub-section to present their policies governing their decisions to accession objects formally into an institutional collection and the procedures for doing so.*
- c) **Long-term preservation and storage.** *This sub-section can include policies concerning standards for collection care, including standards for environmental controls, facilities, and curatorial procedures.*
- d) **Inventory control.** *The [2008 IWGSC report](#) stressed the classification of institutional collections as federal assets, subject to the same accounting and inventory control as other real assets owned by the Federal Government. This sub-section should present the agency's policies concerning its system for accounting for collections, which may include the use of unique identifiers for cataloging, coding, tracking, digitization and periodic inventories.*
- e) **Access and use.** *Agency policies should describe the criteria used by collection management staff to approve or refuse access to and use of institutional collections, and, where relevant, for granting or denying permission for destructive sampling for analysis. These policies should cover loans and other mechanisms for sharing samples. Agencies may elect to include policies governing access to and use of project collections as well.*
- f) **Security.** *The agency policies governing security of facilities housing institutional collections should be presented in this sub-section.*
- g) **Risk and emergency management.** *This sub-section should present the agency's policies for anticipating risks to its collections, such as human- and naturally-caused emergencies that might threaten the collections. These policies should also address agency plans to manage and mitigate these risks.*

- h) Deaccessioning of objects.** *Agency-wide policies should describe the criteria used in deciding if objects may be removed permanently from an institutional collection. These policies should also describe the general procedures for determining if these objects should be transferred to another institutional collection, re-purposed for other uses, or disposed of through donation, destruction, or other means.*
- 8) Standards for documentation.** *Agencies should present their policies on recordkeeping that meet accountability requirements and facilitate access and use of collections. For example, these policies may address digitization, computerized data management, or other means of documenting the objects in collections.*

 - a) Cataloging.** *Agencies should use this sub-section to present their policies concerning the cataloging of objects at the time of acquisition and accessioning into their institutional collection, including minimum data required per specimen.*
 - b) Loans and other sharing mechanisms.** *This sub-section should present the agency's policies concerning the documentation of loans and transfers of sub-samples, and the management of data related to these transactions, including the minimum data required per transaction.*
 - c) Deaccessioning and disposal.** *Agencies should address this issue by presenting their policies concerning the documentation and data management related to the deaccessioning and disposal of objects from their institutional collections, including the minimum data required per event.*
- 9) Legal/ethical issues.** *Agency policies should address any legal or ethical issues related to accessioning, use, deaccessioning and other aspects of collection management (e.g., intellectual property rights, informed consent, compliance with laws and treaties).*
- 10) Glossary of terms, definitions.** *Agencies may choose to present definitions of the critical terms used in their collections policies, particularly terms that might be used in different ways in conjunction with different types of scientific collections or that relate to controversial issues.*

APPENDIX

Examples of Collection Policies

The following examples taken from federal agency policy documents show how the issues raised in this report can be addressed. IWGSC has no expectation that the specific text presented in the following shaded boxes should be adopted by other agencies. These illustrative examples are offered as guidance to departments and agencies as they consider modifications of their collections policies. As agencies develop new and innovative policies, IWGSC plans to update and replace the examples presented in this Appendix.

- 1) **Collection Mission Statement.** *Scientific collections can serve an agency's mission in diverse ways. Agency policies should describe the role and importance of collections in the overall mission of the agency.*

Example Policy 1. Smithsonian Directive 600, Collection Management

The collecting units of the Smithsonian develop, maintain, preserve, research, interpret, and, in the case of living plants and animals, propagate, collections of art, artifacts, and natural specimens. The acquisition, preservation, management, and study of collections are fundamental to the Smithsonian's mission and have been the foundation upon which its reputation rests. Assembled over more than 150 years, the national collections are central to many of the core activities and to the vitality and significance of the Smithsonian. Collections serve as an intellectual base for scholarship, discovery, exhibition, and education. Collections also provide content for Smithsonian ventures such as publishing, licensing, and media projects.

Each Smithsonian collecting unit maintains its own unique collection, purpose, character, and role in achieving the Smithsonian's mission of "the increase and diffusion of knowledge." Among the vast collections are irreplaceable icons of the Nation, examples of common life, and scientific material vital to the study of the world's natural and cultural heritage. Smithsonian collections represent a diverse range of materials and disciplines, including works of art, historical artifacts, natural and physical science specimens, living animals and plants, images, archives, libraries, audio and visual media, and their associated information. Together, they preserve the past, increase our understanding of society and the natural world in which we live, and support the research that expands human knowledge in the arts, humanities, and sciences. The scope, depth, and unparalleled quality of these collections make it imperative to ensure that they are properly preserved and made accessible for current and future generations to behold, enjoy, and study.

- 2) **Legal authority.** *The legal and/or regulatory authority under which agencies hold and manage collections is very important and should be included in agency-wide collections policies. The legislation, regulations, or other laws related to an agency's authority to obtain, accession and deaccession collection should be listed explicitly in their collections policies.*

Example Policy 2. Department of the Interior Departmental Manual, Part 411

Authorities. Museum property is identified, acquired, and managed by bureaus and offices in compliance with the following Federal laws and regulations.

- A. **Archeological Collections.** The following authorities relate to the identification, acquisition, appropriate management, and meeting other requirements for archeological collections.
- (1) Act for the Preservation of American Antiquities of 1906 (16 U.S.C. 431-433).
 - (2) Reservoir Salvage Act of 1960, as amended (16 U.S.C. 469-469c);
 - (3) National Historic Preservation Act of 1966, as amended (16 U.S.C. 470-470t);
 - (4) Archaeological Resources Protection Act of 1979, as amended (16 U.S.C. 470aa-mm);
 - (5) Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 3001-3013);
 - (6) Curation of Federally-Owned and Administered Archaeological Collections, 36 CFR Part 79;
 - (7) Native American Graves Protection and Repatriation Act Regulations, 43 CFR Part 10;
 - (8) Preservation of American Antiquities, 43 CFR Part 3;

(9) Protection of Archaeological Resources, 43 CFR Part 7.

- 3) **Scope of agency collections.** *Agencies and their component sub-agencies and departments can own a variety of collections with highly varied content. Agency policies should specify the major collections owned by the agency and should describe the kinds of specimens/samples they contain. In addressing this issue, agencies may choose to distinguish the institution collections from the project collections owned by the agency.*

Example Policy 3. NASA Curation Policies Overview

The fundamental curation policy document is NASA Policy Directive NPD 7100.10D entitled Curation of Extraterrestrial Materials (1). It lays out at the highest level responsibilities of the various Headquarters (HQ) Offices (now Directorates) and Johnson Space Center in curation of all natural materials returned from NASA missions to extraterrestrial environments. A copy is attached.

Johnson Space Center (JSC), under the oversight of the Solar System Exploration (now Planetary Science) Division of HQ, is responsible for the curation of the NASA's astromaterials that currently include Apollo Moon, stratospheric interplanetary dust, Genesis solar wind, Stardust comet samples. JSC also is responsible for the active curation of US Antarctic meteorites under a long-standing collaboration with NSF and SI-NMNH.

- 4) **Organizational applicability.** *Not all organizational units within an agency may have scientific collections. The section of agency-wide policies that addresses this issue should specify the organizational sub-units within the agency to which the collections policies apply. Agencies may elect to include specific information on the degree to which their agency-wide collections policies apply to project collections.*

Example Policy 4. Smithsonian Directive 600, Collections Management

This directive applies to all collecting units— Smithsonian units that have delegated collecting authority to acquire and manage collections. Only designated collecting units, as listed in the SD 600 Implementation Manual, have the authority to acquire and manage collections.

- 5) **Relation of department-wide policies to collection/unit-specific policies.** *In addition to having agency-wide collections policies, agencies may elect to develop more specific policies that apply to collections held by organizational sub-units. Agencies may choose to include information concerning any differences in policies that apply to project versus institutional collections. Agencies that elect not to develop unit-specific policies may also choose to include a brief statement to that effect.*

Example Policy 5.1. Smithsonian Directive 600, Collections Management

Smithsonian collections management is guided by the following principles:

- a. Each collecting unit develops, implements, and adheres to an authorized, written collections management policy to ensure the proper physical care and preservation of its collections; provide for the documentation of their identification, location, condition, and provenance; and ensure maximum accessibility consistent with their preservation, security, and legal considerations.
- b. Collecting unit policies adhere to the policies set forth in this directive and guidelines established in the SD 600 Implementation Manual and are consistent with Smithsonian and unit missions and goals.
- c. Collecting unit policies are periodically reviewed and, if necessary, revised and reauthorized.
- d. All Smithsonian collections have access and accountability policies for their use and management.
- e. Each Smithsonian collecting unit designs policies specific to the nature, scope, and character of its collections. Collecting unit policies must have the approval of the National Collections Program, Office of General Counsel, appropriate Under Secretary or Director - International Art Museums Division, and the Secretary. Each collecting unit policy must include the following components and provisions.

Example Policy 5.2. National Cancer Institute 2011 Best Practices

B.3.3. Standard Operating Procedures Manual

Each biospecimen resource should develop Standard Operating Procedures (SOPs) that state policies and describe relevant processes in detail. Additionally, a document control program and policies for governing, modifying, or revising SOPs should be at each biospecimen resource. All SOPs should be reviewed on a periodic basis or whenever significant changes in practices, procedures, technology, law, or regulation necessitate an update. The SOPs should be well structured and undergo a rigorous approval process. Upon implementation, all SOPs should be followed as written. Current copies of SOPs (SOPs manual) should be stored in designated locations and available to personnel at all times. Personnel should review new and revised SOPs prior to implementation; reviews and associated trainings should be recorded.

- 6) **Delegation of authority.** *Agency policies should identify the agency officials with responsibility for carrying out policies related to collections and should specify their responsibilities.*

Example Policy 6. Smithsonian Directive 600, Collection Management

The Secretary is responsible for establishing and overseeing appropriate policies and programs and ensuring compliance with applicable laws and regulations. The Secretary may delegate to the Under Secretaries, the Deputy Under Secretary for Collections and Interdisciplinary Support, collecting unit directors, and other appropriate staff the responsibility to implement established policies and carry out the direct management and care of Smithsonian collections.

The Under Secretaries and the Deputy Under Secretary for Collections and Interdisciplinary Support ensure that Smithsonian collections are managed in compliance with this directive through oversight of collecting unit directors.

The collecting unit director is responsible for:

- a. Unit policy guidance, program direction and planning, and budget support to carry out the
- b. collections management requirements established in this directive
- c. Establishing collecting priorities to guide the development of collections
- d. Establishment, review, and revision of unit collections management policies
- e. Unit compliance with this directive, SD 600 Implementation Manual, and unit collections management policy, including an annual report on compliance
- f. Delegating authority and assigning collections responsibility to the appropriate unit staff

A collecting unit may have an advisory board or commission, created by the Board of Regents or pursuant to federal statutes, to provide advice and assistance to the Board of Regents, Secretary, and collecting unit directors. The role of advisory boards or commissions with respect to collections shall be specified in bylaws approved by the Board of Regents.

By statute or legal agreement, the Boards of the Archives of American Art, Hirshhorn Museum and Sculpture Garden, and National Museum of the American Indian have been given sole authority for specified collections management decisions. This authority shall be carried out in accordance with the general policies of the Board of Regents and applicable directives established by the Secretary, including this directive.

- 7) **Standards for managing collections, including quality assurance and quality management programs.** *Agency policies should specify any overall management standards (e.g., ISO) or other quality assurance or quality management systems that govern agency-wide collections operations.*

Example Policy 7.1. National Institutes of Health (NIH) Guidelines for Human Biospecimens

Quality management practices including standard operating procedures

All human biospecimen collections and repositories, whether large or represented by individual freezers in laboratories, should have written standard operating procedures (SOPs) detailing the policies and procedures used to collect, process, handle, store, track, ship, and share biospecimens. Human biospecimens must be handled safely in accordance with OSHA regulations and recommendations, as applicable. The quality assurance program should include periodic evaluation of adherence to the standard operating procedures.

Repositories should perform an annual verification of the physical location of a random sampling of the biospecimens to confirm that the appropriate biospecimens are in the correct location, as indicated by the inventory system.

Example Policy 7.2. Department of the Interior Departmental Manual, Part 411

Preservation and Protection, Including Required Standards. Museum property must be preserved, protected, and managed in appropriate bureau/office facilities or non-bureau museums, repositories, visitor centers, offices, and other facilities. Bureaus/offices must apply the required standards for environmental controls, security, fire protection, housekeeping, physical examination, conservation treatment, storage, exhibiting in exhibit space and administrative office space, and use to its museum property in bureau and non-bureau facilities, particularly in storage and exhibit spaces. The required standards for managing and preserving museum property are provided in DOI Museum Property Directive 4, *Required Standards for Managing and Preserving Museum Property*, at <http://www.doi.gov/museum/>.

The following subsections describe the policy issues related to the different stages of collection processing and management:

- a) **Obtaining and depositing objects prior to accessioning.** *This sub-section should present agency policies for managing objects before they are accessioned formally into institutional collections. Agencies may elect to use this sub-section to describe their policies governing project collections or other objects collected during normal agency activities but are not subsequently retained in their institutional collections (e.g., objects collected during surveys of biological diversity).*

Example Policy 7a. Smithsonian Directive 600, Collection Management

a. Principles. The acquisition of collections is fundamental and critical to the vitality of the Smithsonian. The Smithsonian acquires collection items by a variety of methods, including gift, bequest, purchase, exchange, transfer, and field collecting. In addition, some Smithsonian collecting units may also acquire collections by propagation. The Smithsonian requires responsible, disciplined acquisition of collections through the following principles:

- (1) The acquisition of collections relevant to the mission and goals of the Smithsonian and individual collecting unit
- (2) The establishment and periodic review of collecting scope statements which define collecting goals and priorities
- (3) Clear delegation of collecting authority within collecting units
- (4) The use of formalized acquisition evaluation criteria
- (5) Strict adherence to professional ethics and all applicable laws and regulations relating to collections acquisition

b. Policy

- (1) Collections may be acquired only in accordance with established authority and only when consistent with applicable law and professional ethics. All applicable federal, state, local, and international laws, treaties, regulations, and conventions will be observed and compliance documented.
- (2) The Smithsonian observes the highest legal and ethical standards in the acquisition of collections. Collecting units shall exercise due diligence in the acquisition of collections, including making reasonable inquiries into the provenance of collection items under consideration for acquisition, to

determine that the Smithsonian can acquire a valid title to the collection item and the acquisition will conform to all legal and ethical standards as set forth in the *SD 600 Implementation Manual*.

(3) As a general rule, collection items are acquired and accessioned only when there is a good faith intention to retain them in the Smithsonian collections for an indefinite period of time. Exceptions to this rule may be approved in accordance with guidelines established in the *SD 600 Implementation Manual*.

(4) As a general rule, the Smithsonian only acquires unrestricted collections. Exceptions to this rule may be approved in accordance with guidelines established in the *SD 600 Implementation Manual*.

- b) Accessioning.** *Agencies should use this sub-section to present their policies governing their decisions to accession objects formally into an institutional collection and the procedures for doing so.*

Example Policy 7b. National Cancer Institute 2011 Best Practices

C.1.2. Legacy or Contingency Plans

Biospecimen resources' legacy or contingency plans should be part of the overall governance plan and should address the handling and disposition of biospecimens and associated data at one or more of the following points: (1) End of the budget period of the grant, (2) loss of management or termination of funding, (3) accomplishment of the specific research objectives of the study, (4) depletion of biospecimens, (5) achievement of critical data end points, and/or (6) discontinuation of participation by human research participants. At any of these points, an assessment of whether the stored biospecimens still have value for research should be conducted.

If the stored biospecimens still have research value, the resource should consider whether to become financially self-sustaining. Alternatively, the resource should consider announcing the availability of the biospecimens for transfer to suitable research facilities by means appropriate for reaching a wide audience, if permitted by the informed consent document and the relevant IRB. Biospecimen resources should use the same decision making criteria for allowing transfer of biospecimens to other biospecimen resources as they do when allowing transfer of biospecimens to investigators. The transfer of such biospecimens should be consistent with human subjects regulations, the informed consent under which the biospecimens and data were initially collected, and any other prior agreements and institutional policies that may apply. (Also see Section C.2, Informed Consent.)

C.1.3. Policies on Retention

Biospecimen resources should establish and document transparent policies governing the retention of biospecimens and data. In addition, usage agreements, such as MTAs [Material Transfer Agreements], should specify the retention policies of the recipient investigator. Other considerations related to biospecimen retention include the following:

- The retention of clinical biospecimens may be governed by Federal and/or State laws.
- For research biospecimens, permanent storage is generally preferred, subject to sufficient resources and storage space and foreseeable research utility; i.e., poor-quality biospecimens as determined via quality assessment/quality control (QA/QC) processes should not be stored indefinitely.
- Biospecimen availability should be reviewed periodically (e.g., at the time of funding renewal) to determine the utility of the retained biospecimens and the need for new biospecimens.

- c) Long-term preservation and storage.** *This sub-section can include policies concerning standards for collection care, including standards for environmental controls, facilities, and curatorial procedures.*

Example Policy 7c. National Cancer Institute 2011 Best Practices

Biospecimens should be stored in a stabilized state. Unnecessary thawing and refreezing of frozen biospecimens or frozen samples of biomolecules extracted from the biospecimens should be avoided,

and appropriate size for aliquots and samples should be determined in advance to avoid thawing and refreezing of biospecimens. When thawing/refreezing is necessary, a biospecimen resource should follow consistent and validated protocols to ensure continued stability of the analytes of interest. Methods such as inventory tracking should be established to minimize disruption of the stable environment during sample retrieval.

- d) **Inventory control.** *The [2008 IWGSC report](#) stressed the classification of institutional collections as federal assets, subject to the same accounting and inventory control as other real assets owned by the federal government. This sub-section should present the agency's policies concerning its system for accounting for collections which may include the use of unique identifiers for cataloging, coding, tracking, digitization and periodic inventories.*

Example Policy 7d. Smithsonian Directive 600, Collection Management

Inventory is an itemized listing of collection items, groups, or lots that identifies the current physical location of each item, group, or lot; the process of physically locating all or a selection of items for which the museum is responsible; and appropriate information to facilitate research, collections management, security, and access.

Cyclical Inventory is a planned inventory of collection items, conducted according to a predetermined schedule. Cyclical inventories may include a complete inventory or a specific percentage or sampling of the entire collection inventory as predetermined using statistically sound inventory methods.

a. **Principles.** Effective collections management requires a continuous inventory system to support decisions regarding collections use, growth, storage, and security. In addition to facilitating research, documentation, and storage, an ongoing inventory system is an essential security device to deter and detect theft of collection items. Inventory records serve as a tool for accountability, and are also useful in supporting other Smithsonian programs when augmented with additional documented information. Full inventory control requires creating and maintaining reliable information about the identification, location, and accessibility of collection items. Inventory is a critical component of ongoing collections documentation.

b. **Policy.** In order to safeguard Smithsonian assets, assure compliance with applicable laws and regulations, and promote efficient use of resources, Smithsonian collecting units must create and maintain accurate and current inventory records.

- e) **Access and use.** *Agency policies should describe the criteria used by collection management staff to approve or refuse access to and use of institutional collections, and, where relevant, for granting or denying permission for destructive sampling for analysis. These policies should cover loans and other mechanisms for sharing samples. Agencies may elect to include policies governing access to and use of project collections as well.*

Example Policy 7e. Smithsonian Directive 600, Collection Management

Access is the opportunity for the general public, scholars, and Smithsonian staff to utilize the diverse collection resources of the Smithsonian Institution.

a. **Principles.** To carry out its mission for “the increase and diffusion of knowledge,” the Smithsonian promotes access to its collections and associated information through research opportunities, traditional and electronic exhibitions, educational programs and publications, reference systems, loan and exchange of collections, and electronic information services.

b. **Policy**

(1) The Smithsonian will provide reasonable access to its collections and collections information consistent with its stewardship responsibilities. Physical and intellectual access to the collections must be balanced against preservation and protection concerns.

(2) In keeping with its stewardship responsibilities, the Smithsonian will control, monitor, and document all access to and use of collections.

- (3) Access to collections and collections information may be restricted due to resource limitations, security, object availability, intellectual property rights, applicable restrictions, and preservation constraints.
- (4) Access fees may be charged only according to approved collecting unit policies in accordance with guidelines set forth in the *SD 600 Implementation Manual*.
- (5) The Smithsonian Institution is not subject to the Freedom of Information Act (FOIA), which governs access by the public to Federal agency records. The Smithsonian follows the intent and spirit of the law as a matter of policy. All requests citing FOIA must be referred to the Office of General Counsel.

- f) **Security.** *The agency policies governing the security of facilities housing institutional collections should be presented in this sub-section.*

Example Policy 7f. Example from Department of the Interior Museum Property Directive 4

Security Standards. Storage spaces must be secured and access limited to curatorial staff and other authorized individuals. Exhibit spaces must be secured at all times. When exhibits are not open to the public, access must be limited to curatorial staff and other authorized individuals. General requirements address:

- (A). Written policies and procedures for access to museum collections and museum records must be developed and implemented, including:
 - (1) Controlling access to keys and other entry methods.
 - (2) Opening and closing storage and exhibit spaces.
 - (3) Recording visitor and researcher access to storage spaces using a consistent system that is retained as a museum record (e.g., a sign-in log).
 - (4) Recording and tracking the movement of objects.
 - (5) Informing security staff of procedures for access and use.
- (B). Use of an appropriate combination of security measures that include staffing, mechanical devices, and electronic security systems to protect museum collections.
- (C). Address any special needs for the museum collections in an emergency management plan.

- g) **Risk and emergency management.** *This sub-section should present the agency's policies for anticipating risks to its collections, such as human- and naturally-caused emergencies that might threaten the collections.. These policies should also address agency plans to manage and mitigate these risks.*

Example Policy 7g. Department of the Interior Museum Property Directive 4

1.8 Fire Protection Standards. Equipment and/or systems must be installed to detect and suppress fire in storage and exhibit spaces that house museum collections. General requirements must:

- (A) Address in a fire plan the needs of museum collections, including objects and archives, when fire is being prevented, detected, and/or suppressed.
- (B) Select systems appropriate to the nature of the museum collections in the space and for the structure in which the objects are housed.
- (C) Make spaces that house museum collections fire-resistant to the extent possible.
- (D) Store museum records, including records in electronic format, in appropriate fire-resistant containers, vaults, or secure off-site facilities, and keep the containers secured when not in use.
- (E) Prohibit flammable liquids in any area that houses museum collections, except where flammable liquid is a component of the museum object such as natural history specimens stored in jars containing alcohol.

- h) **Deaccessioning of objects.** *Agency-wide policies should describe the criteria used in deciding if objects may be removed permanently from an institutional collection. These policies should also describe the general procedures for determining if these objects should be transferred to another*

institutional collection, re-purposed for other uses, or disposed of through donation, destruction, or other means..

Example Policy 7h. Smithsonian Directive 600, Collection Management

a. Principles. As a general rule, collections are acquired for Smithsonian collections only when there is a good faith intention to retain the material for an indefinite time period. Collections are retained as long as they continue to serve the goals and objectives of the Smithsonian and can be properly maintained and used. Deaccessioning and disposal are a legitimate part of responsible collections management. Prudent collections management includes judicious consideration of appropriate deaccessioning and disposal. The periodic review, evaluation, deaccessioning, and disposal of existing collections is intended to refine and improve the quality and relevance of the collections with respect to the Smithsonian's mission and purpose. Deaccession and disposal procedures are designed to insure thoughtful, well-documented consideration of each proposed collection item in the context of the long-term interest of the Smithsonian, the general public, and the collection item.

Deaccessioning and disposal occur for a variety of reasons, such as deterioration of collection items beyond usefulness; duplication or redundancy of collection material; insufficient relationship of collection items to the mission and goals of the collecting unit such that they are judged to be better placed elsewhere; repatriation; and selection for consumptive research or educational use. The Smithsonian disposes of collections by a variety of methods, such as donation, transfer, exchange, sale, repatriation, and destruction. In addition, some Smithsonian collecting units may also record disposal of collections by death.

b. Policy

- (1) Collections may be deaccessioned and disposed of only in accordance with established authority and only when consistent with applicable law and professional ethics. All applicable federal, state, local, and international laws, treaties, and regulations and any other applicable restrictions will be observed and documented.
- (2) If the estimated value of a single collection item or a group of collection items considered for disposal is:
 - (a) More than \$10,000, the collecting unit must obtain a written, independent appraisal or informed estimate of fair market value
 - (b) More than \$100,000, the collecting unit must obtain two written, independent appraisals or informed estimates of fair market value and approval of the deaccession and disposal from the National Collections Program, the Office of the General Counsel, the appropriate Under Secretary or Deputy Under Secretary for Collections and Interdisciplinary Support, and the Secretary
 - (c) More than \$500,000, the collecting unit must obtain two written, independent appraisals or informed estimates of fair market value and approval of the deaccession and disposal from the National Collections Program, the Office of the General Counsel, the appropriate Under Secretary or Deputy Under Secretary for Collections and Interdisciplinary Support, the Secretary, and the Board of Regents.
- (3) Smithsonian collecting units shall have a right of first refusal for collection items proposed for disposal, except as otherwise stipulated by authorizing legislation or other restrictions. Such transfers are without financial compensation, except when a collecting unit disposes of a collection item acquired through purchase.
- (4) Proceeds realized from the disposal of collection items must be designated for additional collection acquisitions.
- (5) The Secretary will report annually to the Board of Regents on deaccessions and disposals that have occurred during the reporting period.

- i) Standards for documentation.** *Agencies should present their policies on recordkeeping that meet accountability requirements and facilitate access and use of collections. For example, these policies*

may address digitization, computerized data management, or other means of documenting the objects in collections.

Example Policy 8. Smithsonian Directive 600, Collection Management

Collections information is the documentation of the intellectual significance, physical characteristics, and legal status of collection items, as well as the collections management processes and transactions they undergo. Collections information is part of an ongoing process with documentation residing in a combination of manual files, electronic information systems, and media formats.

a. Principles. The documentary value of a museum collection is a principal criterion for its excellence. Well-documented results of scientific, historic, and aesthetic research enable the Smithsonian to fulfill its mandate to increase and diffuse knowledge. The value of collections information lies in its quality, integrity, comprehensiveness, and potential for use. The primary purpose of collections information is to provide access to Smithsonian collections, research findings, and the stories they can tell. To support this goal, the Smithsonian has a responsibility to acquire, develop, and maintain collections information systems that enhance access to and accountability for its collections and research findings and to ensure long-term preservation of the resultant information in manual and electronic formats.

Collections information

- improves public and staff access to collections
- facilitates legal, physical, and intellectual control over collections
- enhances the informational integrity and value of collections as the foundation for research, exhibitions, publications, and educational programs.

The Smithsonian is committed to the fundamental objective of effective use of its collections by placing collections information and images in computerized databases, maximizing the application of networked technologies, implementing professional documentation standards, and sharing collections information through collaborations among Smithsonian collecting units and with other educational and research institutions.

b. Policy

- (1) Collections information systems must support and meet Smithsonian and collecting unit missions and public access goals.
- (2) The Smithsonian seeks to provide the widest dissemination of collections information consistent with the stewardship responsibilities for its collections, associated documentation, and intellectual property rights.
- (3) The Smithsonian will develop, implement, and maintain automated collections information systems to facilitate collections management and make collections information accessible to the general public, scholars, and Smithsonian staff for educational and research purposes.
- (4) The provenance of acquired collection items is a matter of public record. Sensitive information involving privacy, collecting localities, intellectual property restrictions, security, and restricted use may constrain access to collections information.
- (5) Collections information, including all records of collections-related decisions and activities, must comply with established collecting unit standards and be maintained according to accepted practice.
- (6) The Smithsonian is responsible for collections data development, maintenance, preservation, and retention. All media containing collections information are maintained for long-term use and must be preserved according to current archival policy and standards.

- j) Cataloging.** *Agencies should use this sub-section to present their policies concerning the cataloging of objects at the time of acquisition and accessioning into their institutional collection, including minimum data required per specimen.*

Example Policy 8a. Department of the Interior Museum Property Directive 3

Cataloging Standards. Cataloging provides a record of collection management, research, and discipline-specific information about an object based on information from accession records and interpretive and scientific research. General requirements are to:

- a) Catalog museum collections using the appropriate discipline type.
- b) Record the physical description of the object; its associations with people, resources, or events; interpretive and scientific research data; and collections management data such as current location and item count.
- c) Complete all data fields for which information is available.
- d) Assign a unique identifying catalog number of an object or group of objects, and label as appropriate to the discipline.
- e) Record the following mandatory catalog data for all museum collections:
 - Accession number
 - Catalog number
 - Discipline type and classification
 - Object or scientific name
 - Unit acronym and/or identifier
 - Controlled property status
 - Item count or quantity: Item count; Lot; Bulk; Linear feet (archives only)
 - Current location
 - Description
 - Date cataloged

- k) Loans and other sharing mechanisms.** *This sub-section should present the agency's policies concerning the documentation of loans and transfers of sub-samples, and the management of data related to these transactions, including the minimum data required per transaction.*

Example Policy 8b. National Institutes of Health (NIH) Guidelines for Human Biospecimens

NIH researchers must utilize written agreements to document shipping and sharing of human biospecimens. Various types of agreements are used for the transfer of human biospecimens and investigators should consult with their IC's Technology Transfer Office regarding such transfers (15). Written agreements for the transfer of biospecimens to commercial laboratories for diagnostic or other routine analysis take different forms and may depend on whether the entity is a for-profit or private organization (*e.g.*, material transfer agreements, purchase orders, contracts).

- l) Deaccessioning and disposal.** *Agencies should address this issue by presenting their policies concerning the documentation and data management related to the deaccessioning and disposal of objects from their institutional collections, including the minimum data required per event.*

Example Policy 8c. Department of the Interior Museum Property Directive 3

(7) Record the following mandatory deaccession data:

- Deaccession number
- Itemized list of objects to be deaccessioned
- Disposition method
- Disposition recipient, if applicable
- Designated authority name
- Date(s) deaccession approved
- Deaccession date
- Date disposition approved
- Disposition date

- 9) **Legal/ethical issues.** *Agency policies should address any legal or ethical issues related to accessioning, use, deaccessioning and other aspects of collection management (e.g., intellectual property rights, informed consent, compliance with laws and treaties).*

Example Policy 9. Smithsonian Directive 600, Collections Management

The Smithsonian recognizes and accepts its fiduciary responsibility to provide proper management, preservation, and use of the collections and associated information it holds for the benefit of the public.

Smithsonian staff have legal, ethical, and professional obligations to maintain high levels of honesty, integrity, and loyalty to the Institution. These standards of conduct are set forth in SD 103, Standards of Conduct. SD 103 establishes Smithsonian policy regarding ethical standards to which all Smithsonian employees are required to adhere. Each collecting unit must have established procedures for implementing the requirements of SD 103 as well as other standards of professional conduct set forth in the SD 600 Implementation Manual.211111