



Public Employees for Environmental Responsibility

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January 11, 2018

Craig R. Robinson, Director
Office of Science Quality and Integrity (OSQI)
U.S. Geological Survey
MS 911 National Center
Reston VA 20192

RE: Information Correction Request Submitted under USGS Information Quality Guidelines

VIA U.S. MAIL & EMAIL (InfoQual@usgs.gov)

Dear Director Robinson:

Public Employees for Environmental Responsibility (PEER) hereby submits this Information Quality Complaint (Complaint) pursuant to the Data Quality Act of 2000 (DQA),¹ the Office of Management and Budget (OMB) Guidelines for Ensuring and Maximizing the Quality, Utility, and Integrity of Information Disseminated by Federal Agencies (OMB Guidelines),² the U.S. Department of Interior Information Quality Guidelines³ as well as the U.S. Geological Survey (USGS) Information Quality Guidelines.⁴

¹ Section 515 of the Fiscal Year 2001 Treasury and General Government Appropriations Act, Pub. L. 106-554, Appendix C, 114 Stat. 2763-153 (Dec. 21, 2000).

² Office of Mgmt. & Budget Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies, 67 Fed. Reg. 8452 (Feb. 22, 2002).

³ U.S. Department of the Interior; Information Quality Guidelines Pursuant To Section 515 Of The Treasury And General Government Appropriations Act For Fiscal Year 2001;

<https://www.doi.gov/sites/doi.opengov.ibmcloud.com/files/uploads/515Guides.pdf>

⁴ U.S. Geological Survey Information Quality Guidelines; http://www2.usgs.gov/info_qual/

In order to resolve this Complaint, PEER hereby respectfully requests that in the USGS's brief response to the Department of Interior Inspector General (IG) Final Evaluation Report-Evaluation of USGS Scientific Collection Management Policy, Report No. 2016-ER-57 (September 2017)⁵ be rescinded and that related steps, detailed below, also be taken.

Introduction:

Approximately 20 years ago, USGS inherited hundreds of ecological scientists marooned from a failed attempt to create a National Biological Survey. The resulting merger never quite succeeded, either. One casualty was the huge agglomeration of plants, animals, and genetic tissues these scientists brought with them. USGS never officially recognized the specimens as scientific collections nor conducted inventories to determine their content and physical location. These conditions persist today.

Scientists collect fossils, plants, and animals and associated data to document the existence of an organism at a given time and space and to ensure repeatability of research. Once investigations are finished, the scientific collection is typically preserved and managed in perpetuity. USGS, however, has failed to acknowledge them as scientific collections and categorizes the majority of them as “working collections” which are considered expendable and carry no obligation to manage or preserve. Consequently, decades of important scientific specimens are being destroyed, lost, or given away by USGS.

In a complaint filed on June 4, 2015,⁶ PEER asked the IG to review this situation and make recommendations for corrective actions to address the fact that USGS:

- Has no policies for archiving biological collections after a study is complete and no guidelines for preserving and tracking specimens;
- Still lacks a complete or accurate inventory of its biological collections. As a result, few of these research archives are accessible to other researchers, let alone the public; and

⁵ See https://www.doi.gov/sites/doi.gov/files/FinalEvaluation_USGSScientificCollections_Public.pdf at Attachment (August 2, 2017 Memorandum from William H. Werkheiser, USGS Acting Director, through Andrea Travnicek, Acting Assistant Secretary for water and Science to Mary L. Kendall, Deputy Inspector General – Subject: Office of the Inspector General (OIG) Draft Evaluation Report – Evaluation of USGS Scientific Collection Management Policy, Report No. 2016-ER-057).

⁶ https://www.peer.org/assets/docs/usgs/6_4_15_DOI_IG_eval_request.pdf

- Adopted a Museum Management Policy declaring that one of its priorities is to control the growth of its natural history collections by not accessioning further additions, thus making space and budgetary considerations (rather than scientific value) the controlling factor of whether a collection is preserved.

The ensuing IG evaluation confirmed these concerns and recommended that the USGS “Reconcile and justify current and future scientific collection policies with the requirements of the Departmental Manual.”⁷

Summary:

In its response to the IG report, the USGS in its memorandum of August 2, 2017, asserts five points about its scientific collections policy:

1. Its policy is “in alignment” with Departmental Manual requirements for working scientific collections;
2. Its policy applies to the management of scientific collections, in contrast to the National Park Service (NPS) and U.S. Fish and Wildlife Service (FWS) policies which apply to the management of museum collections;
3. The language used to describe USGS scientific collections is “well aligned” with that of other science agencies;
4. Its policy employs terminology promulgated by the White House Office of Science and Technology Policy (OSTP) and the Interagency Working Group on Scientific Collections (IWGSC); and
5. The Sundry Civil Act of 1879 “explicitly separated” the scientific investigation functions of the USGS from museum functions.

⁷ Report at p.3, Recommendation 1.

As detailed in the next section, all of these statements from USGS are inaccurate, incomplete, misleading, and duplicitous. They each violate the DQA mandate that agencies ensure the “quality,” “integrity,” and “objectivity” of data in public policy.

I. CHALLENGED INFORMATION DOES NOT COMPLY WITH THE INFORMATION QUALITY GUIDELINES

Taking each of five USGS memorandum points in order:

Statement 1: USGS policy “is in alignment with the Departmental Manual requirements for working scientific collections.”

The USGS policy is not in alignment with Departmental Manual requirements for working collections for two reasons:

1) USGS Biological Collections Are Not Working Collections

DOI Museum Property Directive 1 defines both museum collections and working collections; yet, the bureau inappropriately categorizes the majority of its collections as working collections. For example, the USGS considers all fossil and biological collections as working collections, a term that denotes that the collections are expendable and not intended for long-term preservation. As such, the agency has no obligation to preserve or manage them.

USGS Cultural (Historical) Resources Scope of Collection Statement (September 2014, p.9),⁸ states that “the scientific collections of the USGS are exclusively working collections” and that “Most scientific collections generated by the Bureau’s scientific disciplines are consumed in analysis, or are reference and working collections used for ongoing research.”

While pallets of rocks might be consumed during analyses, this is generally not true for collections of fossils, frozen tissues, plants, and animals – objects that are considered as long-term scientific assets by the professional museum community. Biological specimens that have basic associated data are considered voucher specimens and serve as the only reliable means of corroborating the identity of a species for which data are accumulated during a study and reported in documents resulting from that study.⁹

⁸ https://www.peer.org/assets/docs/usgs/6_4_15_USGS_Museum_Property_Management_Plan.pdf

⁹ USGS PWRC Fact Sheet 2002-19.

Preserved specimens also provide data points for monitoring species health, distribution, and phenotypes through time and allow scientists to re-examine and confirm earlier findings. New analytical techniques such as stable isotope analyses, massive parallel sequencing, and CT-scan tomography can be applied to existing collections to reveal more about Earth's biodiversity and in ways that the original collector never imagined. As such, the collections become more valuable with time, but only if they are retained for long-term preservation.

The IG never looked carefully at what criteria the DOI uses to identify museum collections, nor requested that the USGS justify why their collections are working collections and not museum collections. Nor can USGS honestly claim that all of its so-called "working scientific collections" –

- Are or were NOT "identified by a bureau/office or unit mission";
- NOT "collected during research, resources management, or exploration";
- NOT "collected from Federal land";
- NOT "associated with a significant event, person, or resource";
- NOT "rare or unique"; and/or
- NOT "significant due to age."

Consequently, it is inaccurate and misleading for USGS to claim to the IG that its biological collections are largely working collections.

2) USGS Lacks a Required Policy Governing Working Collections

DOI Museum Property Directive # 1 (March 14, 2013), Section 1.7, defines "Working Collections" and states that Bureaus/offices that administer working collections must have policy to address consumption or disposal and to reevaluate to determine if some objects are in fact museum collections.¹⁰ The USGS, however, has no policy for working collections and has never reevaluated and re-categorized any working collections as a museum collection.

Additionally, the term "working scientific collections" is a USGS construct¹¹ and is not used by Federal entities such as OSTP and IWGSC. The quote used by the USGS in the first

¹⁰ <https://www.doi.gov/sites/doi.gov/files/migrated/museum/policy/upload/Dir-1-Introduction-Managing-Museum-Collections.pdf>

¹¹ USGS Collections Management Glossary of Terms ("last modified on June 28, 2017")
<https://my.usgs.gov/confluence/display/Collections/10.+USGS+Collections+Management+Glossary+of+Terms>

sentence of its response that includes the term “working scientific collection” appears to have come from the 1990 DOI Museum Property Handbook glossary under the definition for “non-museum property” (which the USGS incorrectly credited to the DOI Museum Property Directives, DM Part 411, Chapter 3, Section 1b).¹²

Moreover, the term “working scientific collection” is obsolete and was revised by DOI more 10 years ago¹³. Thus, the USGS presented to the IG an incorrect citation for an improper term.

Further, the USGS is taking contradictory and absurd positions by, on one hand, continuing to apply the improper term “working scientific collection” in the glossary on its collections website while, on the other hand and at the same time, declaring that those disposable collections are important due to their scientific value to researchers world-wide.¹⁴

Statement 2: USGS policy “applies to the management of scientific collections, in contrast to the NPS and FWS policies which apply to the management of museum collections.”

As a bureau of the Department of the Interior, the USGS has a duty to follow the DOI policies over the policies of other groups.

The term “scientific collections” is used by the IWGSC to describe physical objects that are preserved, catalogued, and managed by Federal agencies for research and other purposes, and that are acquired for scientific study. IWGSC further divides the objects into project/working collections and institutional collections, a major difference being that institutional collections are typically under long-term care.

As noted by the IG in its report, DOI bureaus “manage a variety of historic, biologic, and geologic objects that all fall under the umbrella of scientific collections”.¹⁵ DOI further divides them into working collections (comparable to project/working collections) and museum collections (comparable to institutional collections), a major difference being that museum collections are subject to long-term preservation and management.

¹² <https://www.doi.gov/sites/doi.gov/files/migrated/museum/policy/upload/mphi-3.pdf>

¹³ CITATION

¹⁴ <https://my.usgs.gov/confluence/display/Collections/1,+Collections+Management>. And see, generally, <https://my.usgs.gov/confluence/display/Collections/USGS+Collections+Home>

¹⁵ IG Report at p.1 (“Background”).

By stating that their collections are scientific collections in contrast to “the NPS and FWS policies which apply to the management of museum collections,”¹⁶ the USGS is being disingenuous and misleading. Furthermore, USGS is inappropriately shunning DOI policy and terminology without any coherent explanation or justification, let alone authorization.

Statement 3: “The language used to describe USGS scientific collections is well aligned with that of other science agencies”.

Whether or not “the language” used to describe USGS scientific collections is well aligned with that of other science agencies, as noted above, the USGS is a bureau of the Department of the Interior and is obliged to follow the DOI policies rather than the policies of other groups, including non-DOI bureaus and interagency working groups. Where terminology is inconsistent among these groups, bureau officials should objectively interpret the intent of the word using standard professional common sense, something that USGS does not do when utilizing the terms “museum collections” and “scientific collections.”

In addition, contrary to its claim of consistency with other agencies, the USGS is in fact an outlier. DOI bureaus manage collections of fossils and biological specimens as museum property.¹⁷ Yet, USGS alone insists that those are working collections and does not reevaluate and recognize them as museum collections.

Consequently, the USGS statement to the IG is inaccurate and misleading.

Statement 4: USGS policy “employs terminology promulgated by the White House Office of Science and Technology Policy (OSTP) and the National Science and Technology Council Interagency Working Group for Scientific Collections IWGSC”.

The USGS prefers to align its policy with non-DOI entities rather than DOI but, as noted above, the agency has a foremost duty to follow the policy of its parent organization, the Department of Interior.

¹⁶ USGS August 2, 2017 Werkheiser Memorandum to IG, at p.1.

¹⁷ See DOI Museum Program Annual Reports at <https://www.doi.gov/museum/annual-reports>.

To the extent that it is appropriate that the USGS acknowledges the OSTP and IWGSC, it omits the following pertinent points which provide perspective and place the USGS bad practices in proper context:

- Since 2010, OSTP has directed federal agencies with responsibility for scientific collections to have policy for those collections;¹⁸
- The October 6, 2010 Memorandum from OSTP directed federal agencies to budget for collections, develop best practices, and make collections more accessible;¹⁹ and
- A March 20, 2014 Memorandum from OSTP directed Federal agencies to develop a draft scientific-collections management and access policy within six months.²⁰

The USGS has not complied with any of these long-standing directives. Nor could USGS supply the IG with any information about its actions to implement these orders. Thus, USGS' claim that it "employs terminology from OSTP" is deceptive because it implies that the agency follows OSTP directives couched in that terminology. The USGS claim of fealty to terminology is specious if that claim is divorced from any tangible actions supporting that claim.

Statement 5: "By the Sundry Civil Act of 1879 Congress explicitly separated the scientific investigation functions" of the USGS "from museum functions".

The USGS cites adherence to the Sundry Civil Act of 1879²¹ that named the National Museum (subsequently, the National Museum of Natural History (NMNH)) in 1879, as the repository for natural history materials collected by **all branches of the US government** (emphasis added). The USGS assertion falsely suggests there is no room for other legal mandates or federal authorities to supersede the Act.

¹⁸ Memorandum To The Heads Of Executive Departments And Agencies, John P. Holdren, Assistant to the President for Science and Technology, and Director of Science and Technology Policy (The White House, October 6, 2010) <https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/ostp-2010-scientific-collections.pdf>.

¹⁹ Ibid.

²⁰ [https://usfsc.nal.usda.gov/sites/usfsc.nal.usda.gov/files/OSTP_MEMO_Scientific_Collxns_FINAL_2014_03\(1\).pdf](https://usfsc.nal.usda.gov/sites/usfsc.nal.usda.gov/files/OSTP_MEMO_Scientific_Collxns_FINAL_2014_03(1).pdf)

²¹ 20 U.S.C. § 59 (Mar. 3, 1879, ch. 182, § 1, 20 Stat. 394 1965 Reorg. Plan No. 2, eff. July 13, 1965, 30 FR 8819, 79 Stat. 1318; 1970 Reorg. Plan No. 4, eff. Oct. 3, 1970, 35 FR 15627, 84 Stat. 2090; Pub. L. 102-154, Title I, Nov. 13, 1991, 105 Stat. 1000. See 20 Stat. 394 at <https://www.loc.gov/law/help/statutes-at-large/45th-congress/session-3/c45s3ch182.pdf>.

The USGS reliance upon the 19th century law is misplaced. NMNH no longer has room to unconditionally accept specimens from federal agencies and in practice either denies requests, establishes agreements to negotiate mutual responsibilities related to space and collections, or the agency makes its own arrangements with museums and repositories. Moreover, there is more recent legislation such as the Archaeological Resources Protection Act²² and the Paleontological Resources Preservation Act²³ (PRPA) that have superseded the Civil Sundry Act, and which require all land-managing DOI bureaus to preserve the collections that come from their land.

Further, in the case of USGS, the Sundry Civil Act has been reinterpreted as the NMNH's "right of first refusal" but any memorandums between the two entities have applied only to geologic specimens. In addition, any USGS claims to adherence to the Sundry Civil Act are simply false because the agency has no written documentation for any subsequent agreements with the NMNH regarding collections, or for any transactions, such as refusals by the NMNH to accept all or part of a USGS collection.

With respect to biological specimens, since 1996 – when the former National Biological Survey was consolidated with the USGS, adding biologists and biological collections – the USGS has never addressed issues with biological specimens, leaving scientists at a loss with what to do with the collections they compile. In the 20+ years since 1996, the USGS has never even conducted an inventory of the bureau's biological collections, causing these research assets to be inaccessible to other researchers, the public – and even to some significant extent, inaccessible to the USGS itself. As a consequence, any published vouchers cannot be retrieved to review or repeat a scientific study.

Directly because the USGS had never developed any guidelines for preserving biological specimens, these collections are neglected and at constant risk of destruction by being stored in improper, suboptimal conditions, and/or being disbursed. Turning over collections and stewardship responsibilities to the NMNH might have made sense in 1879 when the "National Museum" was nascent and singular, but is horribly anachronistic as a stewardship mechanism in this modern age when there are vast scientific collections throughout the many agencies of the federal government.

²² Pub. L. 96-95, Oct. 31, 1979, 93 Stat. 721 (16 U.S.C. § 470aa, et seq.).

²³ Omnibus Public Land Management Act, Title VI, Subtitle D, Pub. L. 111-11, March 30, 2009, 123 Stat. 1172 (16 U.S.C. § 470aa to aaa-11).

Just as provisions in federal legislation related to 19th century grazing, mining, and natural resources laws became outdated and were subsequently amended to reflect the current environment and changing values, the USGS can no longer hide behind a superceded 1879 law to evade its 21st century scientific stewardship responsibilities for the United States of America's important scientific collections.

II. PEER IS AFFECTED BY THE INFORMATION ERRORS

PEER is a non-profit organization chartered in the District of Columbia with the mission to hold government agencies accountable for enforcing environmental laws, maintaining scientific integrity, and upholding professional ethics in the workplace. PEER is an “affected person” in that PEER is a watchdog organization whose members are negatively affected by official statements that violate quality standards.

In addition as noted above, PEER filed the request with the IG²⁴ that triggered its evaluation report to which the USGS responded.²⁵ The IG evaluation confirmed the substance of our complaint. The USGS response sought to diminish the concerns we raised. Furthermore, USGS has attempted to deflect the IG and to escape USGS' legal, scientific, and ethical responsibilities by throwing up a deceptive smoke screen of glib doubletalk and crude misdirection.

Our actions flowed from PEER members who are current and former USGS biologists and other specialists. Their underlying concern is that decades of important biological specimens are being wasted, destroyed, lost, or given away. As one such USGS biologist stated, “In general, these collections are disposed of through incineration once the project is completed.”

Another expert added that:

“We have no dedicated space or personnel to maintain biological samples beyond their intended purpose. These samples, particularly those preserved in formalin or alcohol, then become a safety and environmental hazard as containers become old and seals begin to fail. We need a permanent central repository with staff and funding to maintain these collections.”

²⁴ See Fn.6.

²⁵ https://www.peer.org/assets/docs/usgs/12_22_15_IG_Ltr.pdf

A maxim of museum management says: “A collection that is not growing is dying.” PEER’s involvement stems from our desire to win a stay of execution for the vast biological heritage in the custody of the USGS.

III. RECOMMENDATIONS FOR CORRECTION OF THE INFORMATION CHALLENGED BY THIS COMPLAINT

Accordingly, PEER respectfully requests the USGS take the following steps to comply with the Data Quality Act:

1. Rescind its response to the IG report and formally notify the Office of the IG of that action;
2. Work with the Office of the Assistant Secretary for Water and Science to develop a response to the IG report that is both accurate and comports with the requirements of the Data Quality Act; and
3. Submit this new response to the IG and request that it be included in an updated version of its evaluation report.

Conclusion:

In summary, the USGS continues to use misleading language and make unsupported statements and broad assertions in an attempt to justify the shortcomings and gaps in the discharge of its management duties and responsibilities for its scientific collections. The USGS has been inconsistent at best, and disingenuous at worst, in categorizing the kinds of collections it has. Rather than acknowledging that much of what they have are scientific collections that should be retained for long-term preservation and management, the bureau’s stubborn insistence in calling them “working scientific collections” serves only to deny USGS’ long-term stewardship responsibility and accountability under DM 411 requirements. To comply with the Data Quality Act, those mischaracterizations and bad practices by the USGS must be corrected.

Submitted by,



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