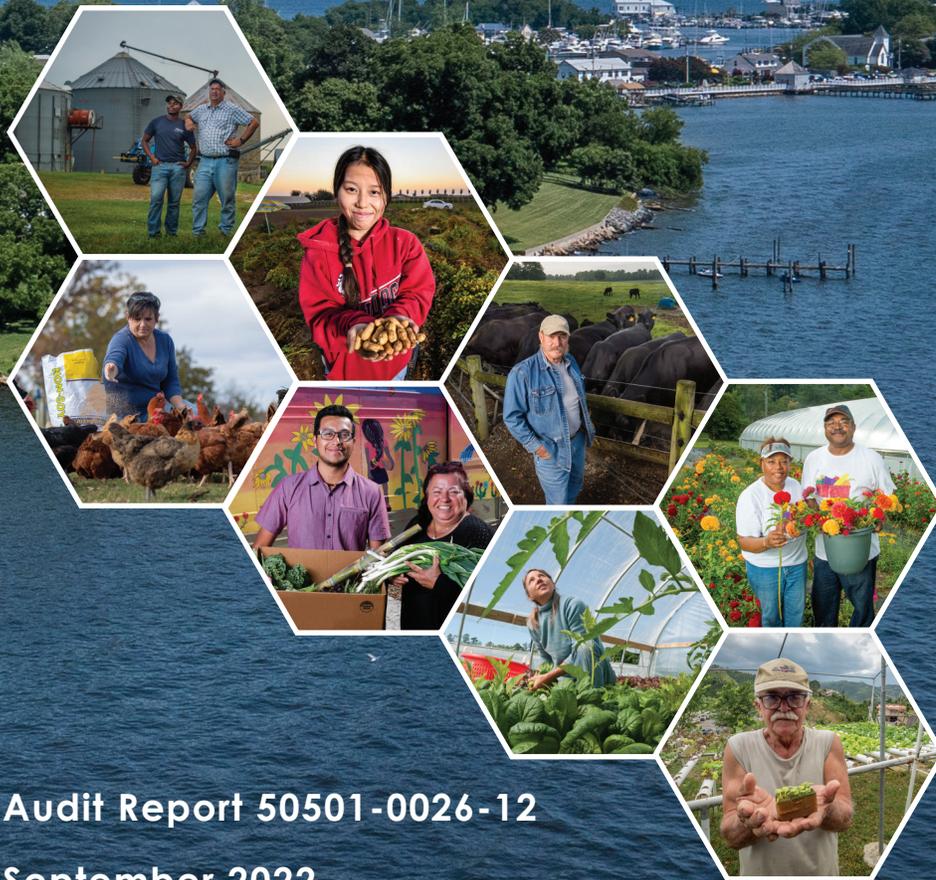




USDA's Compliance with the Geospatial Data Act for Fiscal Year 2022



Audit Report 50501-0026-12

September 2022

USDA's Compliance with the Geospatial Data Act for Fiscal Year 2022

Audit Report 50501-0026-12

We assessed USDA's compliance with the 13 covered agency responsibilities in subsection 759(a) of the Geospatial Data Act.

OBJECTIVE

We determined USDA's compliance with the covered agency responsibilities specific to subsection 759(a) of the GDA.

REVIEWED

We reviewed pertinent geospatial datasets and USDA guidance, and interviewed applicable personnel to determine compliance with the requirements outlined in the Geospatial Data Act for fiscal years 2021 and 2022.

RECOMMENDS

We recommend EGMO: strengthen its oversight practices; coordinate with agencies to identify and catalogue a lifecycle for all geospatial data-sets; ensure that NARA-approved record schedules exist for all National Geospatial Data Asset (NGDA) datasets; develop and maintain a process to verify that all approved USDA NGDAs use geospatial data standards, including metadata standards; implement a process to prepare and maintain a complete inventory of all approved NGDAs and regularly reconcile the inventory; and develop and provide training on the requirements of the GDA.

WHAT OIG FOUND

The purpose of the Geospatial Data Act (GDA) is to minimize duplication of geospatial activities across agencies and improve collaboration, reduce waste, codify previous executive actions, and give Congress an oversight role for the Federal Government's multibillion-dollar investments in geospatial data. The United States Department of Agriculture (USDA) is 1 of 16 covered agencies under the GDA. Within USDA Office of Chief Information Officer (OCIO), the Enterprise Geospatial Management Office (EGMO) oversees, coordinates, and facilitates USDA's implementation of geospatial policies, directives, requirements, and data management.

Although we recognize that USDA has made progress toward complying with certain aspects of the GDA, we found that it was not compliant with 6 of the 13 covered agency responsibilities. Additionally, we determined that the designated oversight entity, EGMO, did not have an accurate inventory of geospatial assets. As a result, USDA agencies inconsistently implemented the GDA. Without consistency, USDA is not completely fulfilling its role of improving Federal management, coordination, and utilization of geospatial data, which can negatively impact mission-critical business requirements of the Department's infrastructure and emergency response capabilities nationwide.

OCIO generally concurred with our six recommendations. However, further action from OCIO is needed before management decision can be reached for each recommendations.



OFFICE OF INSPECTOR GENERAL

United States Department of Agriculture



DATE: September 26, 2022

AUDIT

NUMBER: 50501-0026-12

TO: Gary Washington
Chief Information Officer
Office of the Chief Information Officer

ATTN: Mohammad Nikravesh
Audit Liaison Official

FROM: Yaris Rivera Rojas
Acting Assistant Inspector General for Audit

SUBJECT: USDA's Compliance with the Geospatial Data Act for Fiscal Year 2022

This report presents the results of the subject review. Your written response to the official draft is included in its entirety at the end of the report. We have incorporated excerpts from your response, and the Office of Inspector General's (OIG) position, into the relevant sections of the report. Based on your written response, management decision has not been reached for the six recommendations in the report.

In accordance with Departmental Regulation 1720-1, please furnish a reply within 60 days describing the corrective actions taken or planned, and timeframes for implementing the recommendations. Please note that the regulation requires management decision to be reached on all recommendations within 6 months from report issuance, and final action to be taken within 1 year of each management decision to prevent being listed in the Department's annual Agency Financial Report. Follow your internal agency procedures in forwarding final action correspondence to the Office of the Chief Financial Officer.

We appreciate the courtesies and cooperation extended to us by members of your staff during our audit fieldwork and subsequent discussions. This report contains publicly available information and will be posted in its entirety to our website (<https://usdaoig.oversight.gov>) in the near future.

cc: Director, Internal Control Division, OCFO
ATTN: MCAT Team Members

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Background and Objectives

Background

The Federal Government has recognized the need to organize and coordinate the collection and management of geospatial data since 1990. In that year, the Office of Management and Budget (OMB) revised Circular A-16.¹ In the past, Congress recognized the challenge of coordinating and sharing geospatial data from the local, county, and State level to the National level.² Until enactment of the Geospatial Data Act of 2018 (GDA), the Executive branch had led nearly all efforts to better coordinate and share geospatial data within the Federal Government.³ The purpose of the Act is to minimize duplication of geospatial activities across agencies and improve collaboration, reduce waste, codify previous executive actions, and give Congress an oversight role for the Federal Government’s multibillion-dollar investments in geospatial data.

The GDA applies to agencies defined in the Act, referred to as “covered agencies,” as Executive departments that collect, produce, acquire, maintain, distribute, use, or preserve geospatial data on paper or in electronic form to fulfill the mission of the Executive branch, either directly or through a relationship with another organization.⁴ USDA is 1 of 16 covered agencies.⁵ Currently, four USDA agencies participate in the management of 15 National Geospatial Data Assets⁶ (NGDAs): Farm Service Agency, Forest Service, National Agricultural Statistics Service, and Natural Resources Conservation Service.

Additionally, the Office of the Chief Information Officer (OCIO) is responsible for providing executive leadership, oversight, and accountability for geospatial data and capital assets. To fulfill this responsibility, USDA appointed a geospatial information officer within the OCIO Enterprise Geospatial Management Office (EGMO) to oversee, coordinate, and facilitate USDA’s internal and external coordination and implementation of geospatial policies, directives,

¹ OMB, *Coordination of Geographic Information and Related Spatial Data Activities*, Circular A-16 (Aug. 19, 2002), provides for improvements in the coordination and use of spatial data, and describes the effective and economic use and management of spatial data assets in the digital environment for the benefit of the Government and the Nation.

² The GDA defines geospatial data as “information that is tied to a location on the Earth, including by identifying the geographic location and characteristics of natural or constructed features and boundaries on the Earth, and that is generally represented in vector datasets by points, lines, polygons, or other complex geographic features or phenomena.” The geospatial data may be derived from various technologies, which include images, aerial photographs, and other forms of data or datasets in digitized or non-digitized form, with some exclusions.

³ 43 U.S.C. §§ 2801-2811.

⁴ 43 U.S.C. § 2801(3).

⁵ The Executive departments identified in 5 U.S.C. §101, and defined as covered agencies by the GDA, are the departments of: State, Treasury, Defense, Justice, Interior, Agriculture, Commerce, Labor, Health and Human Services, Housing and Urban Development, Transportation, Energy, Education, Veterans Affairs, and Homeland Security. The GDA also defines the National Aeronautics and Space Administration and the General Services Administration as covered agencies, and it excludes the Department of Defense.

⁶ NGDA is defined as a geospatial dataset that has been designated by the Federal Geographic Data Committee (FGDC) Steering Committee and meets at least one of the following criteria: supports mission goals of multiple Federal agencies, statutorily mandated, supports Presidential priorities as expressed by Executive Order, or by OMB.

requirements, and data management.⁷ EGMO provides enterprise-level leadership to align geospatial strategic planning, policy, tactical implementation, and operational capability with USDA's mission requirements and performance goals. The vision of EGMO is to enhance the mission of USDA by improving its geospatial data, tools, and access through oversight, facilitation, and coordination across all agencies within the Department.

USDA appointed the geospatial information officer to serve as a member of the FGDC Steering Committee.⁸ FGDC acts as the lead entity in the executive branch for the development, implementation, and review of policies, practices, and standards relating to geospatial data. In addition, OMB has a role in geospatial guidance. OMB and FGDC lead the development and management of operational decision-making for the National Spatial Data Infrastructure strategic plan and geospatial data policy, designate NGDA data themes,⁹ establish and maintain geospatial data standards, conduct reviews of covered agencies' compliance with geospatial data standards, and ensure GeoPlatform operations are in accordance with the Act.¹⁰ The GDA requires OMB and FGDC to establish standards for NGDAs and develop additional standards as needed, only establishing new standards if existing standards are not sufficient.¹¹ However, the GDA does not explicitly explain whether the existing body of geospatial standards, endorsed and issued by FGDC prior to the Act, continue to be in effect under the Act. FGDC and OMB have not provided clarification to covered agencies on the implementation of the Act explaining which, if any, standards to follow according to the Act. In addition to the geospatial standard requirements outlined within the Act, the GDA also establishes covered agency responsibilities.¹²

As a requirement of the GDA, FGDC is responsible for developing the GeoPlatform to provide access to geospatial data and metadata for geospatial data to the general public.¹³ The GeoPlatform is also designed to promote data sharing and collaboration across Federal, State, Tribal, and local governments. A geospatial dataset can be designated as an NGDA if it meets one of the following elements:

- used by multiple agencies or with agency partners such as State, Tribal, and local governments;
- applied to achieve Presidential priorities as expressed by OMB;

⁷ OMB, *Designation of a Senior Agency Official for Geospatial Information*, M-06-07 (Mar. 3, 2006), required USDA, among others, to designate a Senior Agency Official for Geospatial Information.

⁸ The FGDC Steering Committee is the policy-level interagency group responsible for providing leadership and direction in support of the OMB Circular A-16 related activities and the development of the National Spatial Data Infrastructure.

⁹ An NGDA data theme refers to the NGDA core geospatial datasets (including electronic records and coordinates) relating to a topic or subject designated under section 2805 of the GDA. Examples of themes include imagery, land use-land cover, and soils.

¹⁰ The FGDC operates an electronic service that provides access to geospatial data and metadata for geospatial data to the general public known as the GeoPlatform.

¹¹ 43 U.S.C. § 2806.

¹² 43 U.S.C. § 2808(a).

¹³ The term "metadata for geospatial data" means information about geospatial data, including the content, source, vintage, accuracy, condition, projection, method of collection, and other characteristics or descriptions of the geospatial data.

- required to meet shared mission goals of multiple Federal agencies; or
- expressly required by statutory mandate.

Additionally, the GDA requires the Inspectors General of covered agencies, not less than once every 2 years, to submit to Congress an audit of the collection, production, acquisition, maintenance, distribution, use, and preservation of geospatial data by the covered agency. This audit should include a review of the covered agency's compliance with: (1) the standards for geospatial data, including metadata for geospatial data, established under section 757; (2) the requirements under section 759(a); and (3) the limitation on the use of Federal funds under section 759A.¹⁴ As of June 30, 2021, FGDC had not adopted or endorsed any standards required under section 757; therefore, our audit focused on USDA's compliance with the 13 agency responsibility requirements under section 759(a).

Our previous audit of USDA's 2020 compliance with the GDA determined that USDA was not compliant with all the covered agency responsibilities.¹⁵ We recommended USDA develop and implement policies and procedures to govern the oversight of USDA's GDA compliance. Additionally, we recommended USDA publish and implement a strategic plan in accordance with the GDA. USDA published its Strategic Plan, which achieved final action for one of the two recommendations. As of August 2022, one recommendation remained open.

Objectives

Our objective was to determine USDA's compliance with the requirements of the covered agency responsibilities specific to subsection 759(a) of the Act.¹⁶

¹⁴ The GDA was originally included as a component of the Federal Aviation Administration (FAA) Reauthorization Act. As the GDA is now codified in 43 U.S.C. §§ 2801-2811, we cite the U.S.C. version of the GDA throughout this report.

¹⁵ Audit Report 50501-0023-12, *USDA's 2020 Compliance with the Geospatial Data Act*, Sept. 2020.

¹⁶ Section 759 of the GDA, as it was included in the FAA Reauthorization Act, correlates to Section 2808 of Title 43 of the U.S.C.

Finding 1: USDA Needs to Strengthen Its Compliance with the Geospatial Data

Although we recognize that USDA has made progress toward complying with certain aspects of the GDA, we found that it was not compliant with 6 of the 13 covered agency responsibilities. Additionally, we determined that the designated oversight entity, EGMO, did not have an accurate inventory of geospatial data assets. These conditions occurred because the EGMO did not implement guidance effectively. Specifically, EGMO did not exercise sufficient oversight to ensure that all USDA agencies comply with the requirements of the GDA and did not finalize policies and procedures. As a result, USDA agencies inconsistently implemented the GDA. Without consistency, USDA is not completely fulfilling its role of improving Federal management, coordination, and utilization of geospatial data, which can negatively impact mission-critical business requirements of the Department infrastructure and emergency response capabilities nationwide, such as wildfire fighting capabilities and accurate crop acreage reporting.

The GDA requires compliance with the covered agencies' 13 responsibilities and other requirements.¹⁷ The covered agencies' 13 responsibilities are listed below:

1. Prepare and implement a strategy for advancing geospatial data activities appropriate to the agency's mission.
2. Collect, maintain, disseminate, and preserve geospatial data such that resulting data, information, or products can be shared.
3. Promote the integration of geospatial data from all sources.
4. Ensure that geospatial data and activities are included on agency record schedules that have been approved by the National Archives and Records Administration (NARA).
5. Allocate resources to fulfill the responsibilities of effective geospatial data collection, production, and stewardship with regard to related activities of the covered agency and as necessary to support the activities of the Committee.
6. Use the geospatial data standards, including the standards for metadata for geospatial data, and other appropriate standards, including documenting geospatial data with the relevant metadata and making metadata available through the GeoPlatform.
7. Coordinate with other Federal agencies, State, local, and Tribal governments, institutions of higher education, and the private sector to efficiently and cost effectively collect, integrate, maintain, disseminate, and preserve geospatial data.
8. Use geospatial information to make Federal geospatial information and services more useful to the public, enhance operations, support decision making, and enhance reporting to the public and to Congress.
9. Protect personal privacy and maintain confidentiality in accordance with Federal policy and law.
10. Participate in determining whether declassified data can become part of the National Spatial Data Infrastructure.

¹⁷ 43 U.S.C. § 2808(b)(2)(B) ("Each covered agency shall maintain an inventory of all geospatial data assets, in accordance with OMB Circular A-130, or any successor thereto.")

11. Search all sources, including the GeoPlatform, to determine if existing geospatial data meet the needs of the covered agency before expending funds to acquire geospatial data.
12. To the maximum extent practicable, ensure that those receiving Federal funds for geospatial data collection provide high-quality data.
13. Appoint a contact to coordinate with other lead covered agencies of the NGDA data themes used by the covered agency.

According to the Government Accountability Office's (GAO) Standards for Internal Control in the Federal Government, control activities are actions that management establishes through policies and procedures to achieve objectives and respond to risks in the internal control system.¹⁸ Further, control activities are the policies, procedures, techniques, and mechanisms that enforce management's directives to achieve the entity's objectives and address related risks.¹⁹ Additionally, a USDA Departmental regulation states that "a series of Departmental Manuals (DM) shall be issued which address specific, and/or unique, geospatial data management requirements, standards, procedures, processes, and performance measures."²⁰

In response to our previous audit, the USDA Geospatial Program's leadership created and published USDA's Geospatial Strategic Plan in December 2020.²¹ This plan has four overall goals: (1) implement the requirements of the GDA and align with associated directives and legislation; (2) strengthen leadership and stakeholder understanding of the value of geospatial data, information, tools, and technology; (3) implement collaborative partnerships to create geospatial cost efficiencies; and (4) empower the USDA geospatial community to support USDA's mission. Additionally, in response to the prior OIG GDA audit, EGMO updated the existing Department regulation, which it anticipates to have finalized and published in fiscal year 2023.

USDA has made progress toward establishing control activities since the prior 2020 GDA audit. For example, the Department established and filled the position of the Geospatial Information Officer in EGMO, and the Department hired a Geospatial Program Manager as well as additional personnel for EGMO. EGMO created a roadmap to update position roles and responsibilities, assess resource needs, and expand the synergy of the geospatial functional areas. EGMO established a mission to provide enterprise-level leadership to align geospatial strategic planning, policy, tactical implementation, and operational capability with USDA's mission requirements and performance goals.

Although USDA has made progress toward complying with certain aspects of the GDA, we determined that EGMO had inconsistent GDA inventory records. We also found that the Department was not compliant with several covered agency responsibilities. These issues are described further in the following examples:

¹⁸ GAO, *Standards for Internal Control in the Federal Government*, GAO-14-704G (Sept. 2014).

¹⁹ *Ibid.*

²⁰ USDA Departmental Regulation 3465-001, *Enterprise Geospatial Data Management* (Aug. 5, 2016).

²¹ Audit Report 50501-0023-12, *USDA's 2020 Compliance with the Geospatial Data Act*, Sept. 2020.

Inventory:

The GDA requires covered agencies to maintain an inventory of geospatial data assets in accordance with OMB Circular No. A-130, Managing Information as a Strategic Resource.²² However, when we requested a list of NGDA datasets from EGMO, it provided a list of 17 datasets. We compared this list to FGDC's website and identified 15 datasets on FGDC's website. EGMO reviewed the list of NGDAs initially provided to OIG and subsequently removed 2 datasets, confirming that there were only 15 NGDA datasets. EGMO stated it does not know what geospatial assets exist within USDA. If EGMO is not aware of all geospatial assets in its responsibility, it is not able to effectively oversee these assets.

EGMO stated that it has not had visibility nor established authority to review new geospatial acquisitions. Additionally, EGMO stated that USDA agencies do not track geospatial data as information technology investments; therefore, EGMO does not have the ability to track data purchases that occur through contracts. Without tracking capabilities of all geospatial assets within the Department, EGMO cannot effectively perform its oversight functions, as required. Therefore, we recommend that EGMO implement a process to prepare and maintain a complete inventory of all the approved NGDA datasets and perform reconciliations of the inventory on a regular basis to ensure it is complete and accurate.

Responsibility 2, Usability of Geospatial Data:

The GDA requires agencies to collect, maintain, disseminate, and preserve geospatial data such that the resulting data, information, or products can be readily shared with other Federal agencies and non-Federal users. Additionally, USDA Departmental regulation²³ requires that each authoritative data source geospatial data asset have a specific lifecycle identified and cataloged. We found 4 of the 15 datasets diverged from USDA's overall identification and cataloging process. The managers of these datasets were unable to provide evidence that they had identified and cataloged a specific lifecycle to collect, maintain, disseminate, and preserve geospatial data. As a result, we could not determine for 4 of the 15 datasets that the resulting data, information, or products can be readily shared with other Federal agencies and non-Federal users, as required by the GDA. Without a specific lifecycle, stakeholders like other Federal agencies are not able to assess whether the dataset managers collect, maintain, disseminate, and preserve geospatial data. Therefore, we recommend that EGMO coordinate with agencies to identify and catalogue a lifecycle for all geospatial datasets.

Responsibility 3, Promote Integration of Geospatial Data:

The GDA requires agencies to promote the integration of geospatial data from all sources. We found that, although USDA addressed the responsibility to promote the integration of geospatial data in its Geospatial Strategic Plan, neither agencies nor dataset

²² 43 U.S.C. § 2808(b)(2)(B).

²³ USDA Departmental Regulation 3465-001, *Enterprise Geospatial Data Management* (Aug. 5, 2016).

managers had a plan or process in place to meet this responsibility. For example, two agencies participated in committees with other organizations to discuss possible data integration opportunities; however, this process did not include an overall plan to promote the integration of geospatial data from all sources. Without a plan or process to promote data integration from all sources, USDA may miss opportunities to use Federal resources wisely. We recommend EGMO strengthen its oversight practices to improve its management of the 13 covered agency responsibilities as required by the GDA.

Responsibility 4, NARA Record Schedules:

The GDA requires agencies to ensure geospatial data are included on NARA-approved agency record schedules. USDA regulation²⁴ sets out and summarizes the policies, as well as the responsibilities for the creation, maintenance, use, and disposition of all records applicable to NARA-mandated guidance. NARA holds historical documents on behalf of the public so that citizens, public servants, Congress, and the courts can obtain the information they need to exercise their rights and responsibilities. However, our review disclosed that 6 of 15 datasets were not included on NARA-approved agency record schedules. We noted that EGMO does not have a documented process or procedure that outlines or demonstrates the steps that agencies need to perform and document in order to comply with the GDA. As a result, NARA was not archiving geospatial data for six USDA datasets created in the course of business. Therefore, we recommend that EGMO, in coordination with agencies, ensure that NARA-approved record schedules exist for all NGDA datasets.

Responsibility 6, Standards:

The GDA requires covered agencies to use geospatial data standards, including standards for metadata. Our review disclosed that 8 of the 15 datasets were not using geospatial data standards. For these 8 datasets, the dataset managers did not identify any geospatial standards that they were adhering to. Specifically, in one instance, the agency stated that it is working to develop a standard for the GeoPlatform and will convert to International Organization for Standardization standards once resources are made available, guidance is provided, and a path forward is identified.²⁵

Additionally, we found that 1 of the 15 datasets was not using the metadata standards required by the GDA. We also found that 11 of the 15 datasets were not following the specific metadata standards required by USDA's Departmental regulation.²⁶ Therefore, we recommend that EGMO develop and maintain a process to verify that all approved USDA NGDAs use geospatial data standards, including metadata standards, and ensure agencies are documenting their datasets with the relevant metadata required by Departmental regulation and made available through the GeoPlatform.

²⁴ USDA Departmental Regulation 3080-001, *Records Management* (Aug. 16, 2016).

²⁵ The International Organization for Standardization is an independent, non-government organization, whose membership consists of different national standards bodies. Through its members, it develops voluntary, consensus-based, market-relevant International Standards that support innovation and provide solutions.

²⁶ USDA Departmental Regulation 3465-001, *Enterprise Geospatial Data Management* (Aug. 5, 2016).

Responsibility 8, Enhancing Geospatial Data:

The GDA requires that agencies: (a) make Federal geospatial information and services more useful to the public; (b) enhance operations; (c) support decision making; and (d) enhance reporting to the public and to Congress. During our review, we found that USDA is not fully compliant with these aspects of the GDA. Specifically, we found that one dataset was no longer updating its data. The dataset manager did not provide any support that the dataset was being updated and stated that there are no plans to ever modify or update the published dataset; therefore, according to the dataset manager, no GDA requirements will be a factor for future versions. This contradicted EGMO, which listed the dataset as an approved, active NGDA that is subject to the GDA. Therefore, we recommend that EGMO implement a process to prepare and maintain a complete inventory of all the approved NGDA datasets and perform reconciliations of the inventory on a regular basis to ensure it is complete and accurate.

Responsibility 11, Search All Sources:

The GDA requires covered agencies to search all sources to determine if existing Federal, State, local, or private geospatial data meet the needs of covered agencies before expending funds for geospatial data collection. We found that 7 of the 15 dataset managers could not demonstrate that they complied with searching all sources. There is currently no documented process or procedure that outlines or demonstrates the steps dataset managers need to perform and document to show compliance with the GDA. Without researching potential existing data sources, agencies may be acquiring geospatial datasets that already exist and meet the needs of the USDA, thus duplicating geospatial data collections and subsequently disbursing funds for existing data sources. Therefore, we are recommending EGMO provide additional oversight and training.

Overall, USDA was not fully compliant with the GDA because EGMO did not implement guidance effectively. Specifically, EGMO management has not provided sufficient oversight to ensure all agencies comply with the requirements of the GDA, and EGMO has not finalized policies and procedures. For example, USDA has not published an updated Departmental regulation to include the requirements of the GDA, and Departmental manuals have not been published. Departmental manuals are used for detailed, high-level guidance that is procedural in nature, and without this additional guidance, agencies were unaware of how to implement GDA requirements. There is an outstanding recommendation from OIG's 2020 audit that states "develop and implement policy and procedures to ensure USDA geospatial datasets are adhering to requirements outlined in the GDA," which has not yet been implemented; therefore, we are not making a new recommendation.^{27, 28}

Additional work remains for the Department to achieve full compliance with the GDA. Without implementing USDA-specific GDA policies and procedures, including training on the

²⁷ Audit Report 50501-0023-12, *USDA's 2020 Compliance with the Geospatial Data Act*, Sept. 2020.

²⁸ OCIO provided us a copy of the draft in December 2021. ²⁹ GAO, *Standards for Internal Control in the Federal Government*, GAO-14-704G (Sept. 2014).

requirements of the GDA, USDA will continue to see inconsistencies across the Department in how agencies implement the GDA. As a mechanism for an effective internal control system, management should implement control activities through issuing and enforcing policies and procedures to ensure the Department conforms to laws and regulations. EGMO generally agreed with our findings and indicated it is in the process of finalizing its policy and anticipates having it published by fiscal year 2023.

Recommendation 1

Strengthen EGMO's oversight practices to improve its management of the 13 covered agency responsibilities as required by the GDA.

Agency Response

OCIO stated it agrees with our finding and recommendations and will work with mission area Assistant Chief Information Officers and key OCIO stakeholders to develop its management decision, which will include its specific plan of action and milestones to assess, design, and implement solutions.

OIG Position

While OIG agrees with OCIO's approach for this recommendation, we cannot accept the response for management decision. To reach management decision, OCIO needs to provide a description of the corrective actions that address this recommendation, including timeframes for implementing the recommendation.

Recommendation 2

EGMO should coordinate with agencies to identify and catalog a lifecycle for all geospatial datasets to collect, maintain, disseminate, and preserve geospatial data, such that the resulting data, information, or products can be readily shared with other Federal agencies and non-Federal users.

Agency Response

OCIO stated it agrees with our finding and recommendations and will work with mission area Assistant Chief Information Officers and key OCIO stakeholders to develop its management decision, which will include its specific plan of action and milestones to assess, design, and implement solutions.

OIG Position

While OIG agrees with OCIO's approach for this recommendation, we cannot accept the response for management decision. To reach management decision, OCIO needs to provide a description of the corrective actions that address this recommendation, including timeframes for implementing the recommendation.

Recommendation 3

EGMO, in coordination with agencies, needs to ensure that NARA-approved record schedules exist for all NGDA datasets

Agency Response

OCIO stated it agrees with our finding and recommendations and will work with mission area Assistant Chief Information Officers and key OCIO stakeholders to develop its management decision, which will include its specific plan of action and milestones to assess, design, and implement solutions.

OIG Position

While OIG agrees with OCIO's approach for this recommendation, we cannot accept the response for management decision. To reach management decision, OCIO needs to provide a description of the corrective actions that address this recommendation, including timeframes for implementing the recommendation.

Recommendation 4

Develop and maintain a process to verify that all approved USDA NGDAs use geospatial data standards, including metadata standards, and ensure agencies are documenting their datasets with the relevant metadata required by Departmental regulation and made available through the GeoPlatform.

Agency Response

OCIO stated it agrees with our finding and recommendations and will work with mission area Assistant Chief Information Officers and key OCIO stakeholders to develop its management decision, which will include its specific plan of action and milestones to assess, design, and implement solutions.

OIG Position

While OIG agrees with OCIO's approach for this recommendation, we cannot accept the response for management decision. To reach management decision, OCIO needs to provide a description of the corrective actions that address this recommendation, including timeframes for implementing the recommendation.

Recommendation 5

Implement a process to prepare and maintain a complete inventory of all the approved NGDA datasets and perform reconciliations of the inventory on a regular basis to ensure it is complete and accurate.

Agency Response

OCIO stated it agrees with our finding and recommendations and will work with mission area Assistant Chief Information Officers and key OCIO stakeholders to develop its management decision, which will include its specific plan of action and milestones to assess, design, and implement solutions.

OIG Position

While OIG agrees with OCIO's approach for this recommendation, we cannot accept the response for management decision. To reach management decision, OCIO needs to provide a description of the corrective actions that address this recommendation, including timeframes for implementing the recommendation.

Recommendation 6

Develop training on the requirements of the GDA, and provide routine training for all employees that work with geospatial data.

Agency Response

OCIO stated it agrees with our finding and recommendations and will work with mission area Assistant Chief Information Officers and key OCIO stakeholders to develop its management decision, which will include its specific plan of action and milestones to assess, design, and implement solutions.

OIG Position

While OIG agrees with OCIO's approach for this recommendation, we cannot accept the response for management decision. To reach management decision, OCIO needs to provide a description of the corrective actions that address this recommendation, including timeframes for implementing the recommendation.

Scope and Methodology

Inspectors General and FGDC play an important role in overseeing compliance with the GDA. CIGIE created a working group of representatives of covered agency Inspectors General. The working group's goal is to facilitate collaboration and consensus among the covered agency Inspectors General as they work to meet the GDA's mandatory audit requirements. For the fiscal year 2022 audit cycle, the working group developed an audit guide detailing the requirements outlined in the GDA and recommended audit testing methodologies.

The Inspectors General determined that audits focused on the covered agencies' progress toward compliance with the GDA, specifically the agencies' compliance with subsection 759(a), would likely provide the best value to the covered agencies, Congress, and the public. This is a somewhat narrower approach than what the law requires because it is currently difficult to determine which standards the audits should use in evaluating compliance. Also, since the law establishes a 5-year implementation period before limiting the use of Federal funds for non-compliant activities, this requirement was not evaluated in the fiscal year 2022 audit. The group approach allows each covered agency's Inspector General to perform additional testing based on the covered agency's geospatial footprint, if the relevant OIG determines that additional testing is necessary (see Exhibit A).

For the purposes of our audit, we followed the recommended CIGIE approach. The audit scope included the fiscal years covered by the 2-year audit requirement established within the GDA, which are fiscal years 2021 and 2022.

We performed our audit work from November 2021 through September 2022 and conducted interviews and fieldwork virtually, accompanied by meetings with responsible USDA agency officials throughout our audit.

We reviewed the 15 approved NGDA datasets under USDA for this audit, which are listed in Exhibit B.

To accomplish our objectives, the audit team:

- researched the GDA and interviewed OCIO personnel to gain an understanding of USDA's geospatial efforts;
- reviewed pertinent records related to USDA's implementation of geospatial standards;
- analyzed all 15 datasets to verify their adherence to geospatial standards and protection of personal privacy;
- met with personnel and reviewed documentation for the OCIO and four USDA agencies, including the Farm Service Agency, Forest Service, National Agricultural Statistics Service, Natural Resources Conservation Service, and OCIO to determine whether USDA was in compliance with the covered agency responsibilities;
- developed and sent a questionnaire to determine how EGMO and the four agencies address the covered agency responsibilities; and
- interviewed personnel to determine the processes used to collect, maintain, disseminate, and preserve geospatial data.

We assessed internal controls to satisfy the audit objectives. Our assessment included internal control components and principles of the Standards for Internal Control in the Federal Government.²⁹ In particular, we assessed the following components and underlying principles:

Component	Principle
Control Activities	Management should implement control activities through policies.
Monitoring Activities	Management should establish and operate monitoring activities to monitor the internal control system and evaluate the results.

However, because our review was limited to these internal control components and underlying principles, it may not have disclosed all internal control deficiencies that may have existed at the time of this audit.

We did not rely on information technology systems as authoritative sources for information reported in accordance with the GDA. Therefore, we did not perform any additional testing to evaluate the agencies' information technology system used and make no representation as to the adequacy of the agencies' information technology systems or the data represented within the systems.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

²⁹ GAO, *Standards for Internal Control in the Federal Government*, GAO-14-704G (Sept. 2014).

Abbreviations

CIGIE.....	Council of the Inspectors General on Integrity and Efficiency
DM.....	Departmental Manual
EGMO.....	Enterprise Geospatial Management Office
FAA.....	Federal Aviation Administration
FGDC.....	Federal Geographic Data Committee
GAO.....	Government Accountability Office
GDA.....	Geospatial Data Act
NARA.....	National Archives and Records Administration
NGDA.....	National Geospatial Data Asset
OCIO.....	Office of the Chief information Officer
OIG.....	Office of Inspector General
OMB.....	Office of Management and Budget
U.S.C.....	United States Code
USDA.....	United States Department of Agriculture

Exhibit A: CIGIE's Geospatial Data Act Distinction Letter Submitted to the Senate Committee on Commerce, Science, and Transportation and the House Committee on Science, Space, and Technology



October 18, 2021

The Honorable Maria Cantwell
Chairwoman
The Honorable Roger F. Wicker
Ranking Member
Committee on Commerce, Science,
and Transportation
United States Senate
Washington, D.C.

The Honorable Eddie Bernice Johnson
Chairwoman
The Honorable Frank Lucas
Ranking Member
Committee on Science, Space,
and Technology
U.S. House of Representatives
Washington, D.C.

Dear Chairwomen and Ranking Members:

The Council of the Inspectors General on Integrity and Efficiency (CIGIE) recognizes and appreciates your leadership on issues of geospatial data. In particular, we believe the enactment of the Geospatial Data Act of 2018 (P.L. 115-254) will improve the continuing development of geospatial data and technology. To make sure this happens, the Geospatial Data Act provides for oversight by way of the Federal Inspectors General. Specifically, the Geospatial Data Act requires the biennial completion of a review of Covered Agencies' compliance with standards established by the Act, Covered Agencies' responsibilities detailed in the Act, and Covered Agencies' compliance with the prohibition of Federal funding for non-compliant datasets.

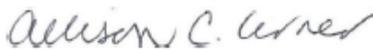
We are writing this letter on behalf of CIGIE to inform you of an important distinction with the biennial Geospatial Data Act audits by the Inspector General community. Specifically, the Fiscal Year 2022 mandatory audit scope period overlaps with the estimated Geospatial Data Act implementation period established by the Federal Geographic Data Committee (FGDC). As part of the implementation phase, the FGDC is evaluating the existing body of standards, among other items. Due to the continuing implementation of the Geospatial Data Act, conducting the mandatory audits as prescribed by the Act would result in reports submitted by the Inspectors General in October 2022 being inconclusive for two of the three audit requirements.

To address this challenge while continuing to meet the mandatory audit requirements, CIGIE convened a working group with representatives from the Covered Agency Inspectors General to reach a consensus on an audit approach for the Fiscal Year 2022 audits. The Covered Agency Inspectors General determined that audits focused on the Covered Agencies' progress toward compliance with the Geospatial Data Act, including the agencies' compliance with requirements under subsection (a), would likely provide the best value to the Covered Agencies, Congress, and the Public. This is a somewhat narrower approach than what the law requires because it is currently difficult to determine which standards the audits should use in evaluating compliance. Also, because the law establishes a five-year implementation period before limiting the use of Federal funds for non-compliant activities, this requirement would not be evaluated in the Fiscal Year 2022 audits.

This consensus approach will afford each Covered Agency Inspector General latitude to perform additional testing based on the Covered Agency's geospatial footprint, as determined necessary by the applicable Inspector General.

Should you or your staffs have any questions about our approach or other aspects of our collective Geospatial Data Act oversight activities, please do not hesitate to contact us at (703) 292-4978 or (703) 248-2296 respectively.

Sincerely,



Allison C. Lerner
Chair, Council of the Inspectors General on
Integrity and Efficiency
Inspector General, National Science
Foundation



Tammy L. Whitcomb
Chair, Council of the Inspectors General on
Integrity and Efficiency, Technology
Committee
Inspector General, U.S. Postal Service

cc: The Honorable Gary C. Peters, Chairman
The Honorable Rob Portman, Ranking Member
Senate Committee on Homeland Security and Governmental Affairs

The Honorable Carolyn B. Maloney, Chairwoman
The Honorable James Comer, Ranking Member
House Committee on Oversight and Reform

The Honorable Jason Miller, Deputy Director OMB and Executive Chair, Council of the
Inspectors General on Integrity and Efficiency

The Honorable Gene Dodaro, Comptroller General, GAO

Exhibit B: USDA's NGDAs According to FGDC

NGDA

1. Bailey's Ecoregions and Subregions Dataset
2. FS National Forest Dataset (US Forest Service Proclaimed Forests)
3. National Geospatial Data Asset (NGDA) National Agriculture Imagery Program (NAIP) Imagery
4. CropScape - Cropland Data Layer
5. Forest Inventory and Analysis Database
6. Landfire Environmental Site Potential
7. Landfire Existing Vegetation Cover
8. Landfire Fire Regime Groups
9. Monitoring Trends in Burn Severity Conterminous United States (Map Service)
10. LANDFIRE Forest Canopy Cover
11. Major Land Resource Areas (MLRA)
12. Soil Survey Geographic Database (SSURGO)
13. U.S. General Soil Map (STATSGO2)
14. NCSS Soil Characterization Database
15. Gridded Soil Survey Geographic (gSSURGO-30) Database for the Conterminous United States - 30 meter

**OCIO's
Response to Audit Report**



United States Department of Agriculture

Office of the Secretary

Office of the Chief
Information Officer

1400 Independence
Avenue S.W.
Washington, DC
20250

TO: Yarisis Rivera Rojas
Acting Assistant Inspector General for Audit
Office of the Inspector General

FROM: Gary S. Washington /s/
Chief Information Officer
Office of the Chief Information Officer

SUBJECT: Response to the Office of Inspector General Draft Report, 50501-0026-12,
USDA's Compliance with the Geospatial Data Act for Fiscal Year 2022

The Office of the Chief Information Officer (OCIO) has reviewed the Office of the Inspector General's (OIG) draft report, USDA's Compliance with the Geospatial Data Act for Fiscal Year 2022 (50501-0026-12) and concurs with the findings and recommendations in the report.

OCIO will work with applicable Mission Area Assistant Chief Information Officers and key OCIO stakeholders to develop our Request for Management Decision, which will include our specific plan of action and milestones to assess, design, and implement solutions. OCIO will submit the Request for Management Decision within 60 days of the date of the final audit report.

Thank you for the opportunity to review and comment on the subject draft report. OCIO appreciates the work of the OIG in conducting its review.

If additional information is needed, please contact Megen Davis, Director, Strategic Planning, E-Government and Audits, at Megen.Davis@usda.gov or (202) 631-1266.

cc: Bajinder Paul, Deputy Chief Information Officer, OCIO
Kimberly Jackson, Associate Chief Information Officer, OCIO
Dr. Ron Sequeira, Senior Agency Official for Geospatial Information, OCIO
Samuel Giles, Director, OCIO Enterprise Geospatial Management Office
Maria Vlioras, Executive Assistant, OCIO
Megen Davis, Director, Strategic Planning, E-Government and Audits
Mohammad Nikraves, Audit Liaison Official, OCIO

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