



Office of Audits  
Office of Inspector General  
U.S. General Services Administration

# Audit of GSA's Compliance with the Geospatial Data Act of 2018

Report Number A240028/I/T/F24006  
September 30, 2024

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## ***Executive Summary***

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### **Audit of GSA's Compliance with the Geospatial Data Act of 2018**

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#### **Why We Performed This Audit**

We performed this audit pursuant to Geospatial Data Act of 2018 (GDA) Section 759(c), *Audits*, which requires the inspector general of each covered agency to conduct an audit, not less than once every 2 years, of the covered agency's compliance with the GDA. Our audit objective was to assess GSA's fulfillment of its responsibilities under the GDA. Specifically, we assessed GSA's compliance with the 13 requirements listed in GDA Section 759(a), *Covered Agency Responsibilities*.

#### **What We Found**

GSA is not fully complying with the GDA. We found that GSA's geospatial datasets are not fully reliable, limiting their usefulness. Specifically, GSA's geospatial datasets contain inaccurate latitude and longitude coordinates. Additionally, some of the data contained in GSA's geospatial datasets has data quality deficiencies. Since the datasets are not fully reliable, they are less useful at meeting the GDA's goals to spur economic growth, advance science, and improve public health and other services. We also found that GSA does not have an effective process to meet the GDA's requirement to search for existing geospatial data before procuring new data sources, which could lead to duplicative and unnecessary purchases of geospatial data.

#### **What We Recommend**

We recommend that GSA's Chief Information Officer:

1. Correct the geospatial data quality deficiencies identified in our report.
2. Implement controls to ensure that the Inventory of Owned and Leased Properties (IOLP) and Federal Real Property Profile Management System (FRPP MS) datasets contain accurate latitude and longitude coordinates based on each property's physical location except for those properties with a clear exemption for national security.
3. Strengthen the data validation process for the IOLP and FRPP MS datasets to address the geospatial data quality deficiencies identified in our report.
4. Establish a process to ensure GSA searches existing geospatial data before procuring new data, including:

- a. Ensuring the Geographic Information Systems Center of Excellence is notified of future geospatial data needs prior to awarding a new contract for geospatial data.
- b. Improving Agency-wide awareness of the requirement to search existing geospatial data prior to awarding a new contract for geospatial data.

In response to our report, GSA partially concurred with our recommendations. While GSA agreed with Recommendation 3, it partially agreed with Recommendation 1 and did not agree with Recommendations 2 and 4. GSA's comments are included in their entirety in **Appendix D**.

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## Introduction

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We performed an audit of GSA's compliance with its responsibilities under the Geospatial Data Act of 2018 (GDA).

### Purpose

We performed this audit pursuant to GDA Section 759(c), *Audits*, which requires the inspector general of each covered agency to conduct an audit, not less than once every 2 years, of the covered agency's compliance with the GDA.

### Objective

Our audit objective was to assess GSA's fulfillment of its responsibilities under the GDA. Specifically, we assessed GSA's compliance with the 13 requirements listed in GDA Section 759(a), *Covered Agency Responsibilities*.

See **Appendix A** – Objective, Scope, and Methodology for additional details.

### Background

On October 5, 2018, the GDA was signed into law to promote greater access to and use of geospatial data, which is information that is tied to a location on Earth, such as latitude and longitude coordinates. The GDA's goals are to spur economic growth, advance science, and improve public health and other services. Potential users of geospatial data include federal, state, tribal, and local government agencies; academic institutions; and the private sector.

The GDA formalizes governance processes related to geospatial data, including the requirements agencies must implement to comply with the Act. Covered agencies under the GDA, including GSA, are the executive branch departments that collect, produce, acquire, maintain, distribute, use, or preserve geospatial data. The GDA also established the Federal Geographic Data Committee (FGDC), an executive branch interagency committee, as the lead entity for the development, implementation, and review of policies, practices, and standards relating to geospatial data.

Under the GDA, each covered agency must submit an annual report to the FGDC, detailing its performance in implementing the 13 covered agency responsibilities (see **Appendix B**). These responsibilities include developing a strategy for advancing geospatial data, sharing geospatial data with other federal and non-federal users, and adhering to data standards. GSA's Geographic Information Systems Center of Excellence (GIS COE) is responsible for GSA's compliance with the GDA. GSA maintains the following two publicly available geospatial datasets that support the critical business and mission requirements of the federal government and its stakeholders:

- **Inventory of Owned and Leased Properties** – GSA’s Inventory of Owned and Leased Properties (IOLP) contains over 16,000 records of properties across the United States and its territories. The IOLP allows federal and non-federal users to easily access and search this information, often to find available office space.
- **Federal Real Property Profile Management System** – GSA collects and maintains the Federal Real Property Profile Management System (FRPP MS), which includes all real property under the custody and control of all executive branch agencies. The FRPP MS public dataset contains information on over 300,000 federal properties from over 50 federal agencies.<sup>1</sup> The goals of the FRPP MS are to: (1) increase accountability for asset management; (2) allow for benchmarking across various types of properties; and (3) provide accurate and reliable data to decision-makers, including for the disposal of unneeded federal properties.

The GDA also requires the inspector general of each covered agency to audit, not less than once every 2 years, the covered agency’s compliance with:

- GDA Section 757, *Geospatial Data Standards*;
- GDA Section 759(a), *Covered Agency Responsibilities*; and
- GDA Section 759A, *Limitation on Use of Federal Funds*.

In its November 2023 letter to Congress, the Council of the Inspectors General on Integrity and Efficiency (CIGIE) explained that the FGDC had not yet issued the geospatial data standards required for full implementation of the GDA (see **Appendix C**). Therefore, CIGIE noted that compliance cannot be assessed for GDA Sections 757 and 759A because they rely on the establishment of those standards. Like prior audits, CIGIE recommended to Congress that the covered agency offices of inspector general focus their audits only on evaluating the agencies’ compliance with the 13 responsibilities set forth in GDA Section 759(a).

### Prior GSA Office of Inspector General Reports on GSA’s GDA Compliance

We conducted our inaugural GDA audit in 2020. In that audit, we found that GSA’s ability to comply with its responsibilities under the GDA was impaired by data quality issues and internal control weaknesses.<sup>2</sup> Specifically, the IOLP data and metadata did not consistently comply with geospatial data standards. We found that these issues were caused by insufficient internal controls.

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<sup>1</sup> FRPP MS’s civilian agencies’ Fiscal Year 2022 public dataset.

<sup>2</sup> *Audit of GSA’s Compliance with the Geospatial Data Act of 2018* (Report Number A201005/M/T/F20005, September 25, 2020).

Again, in 2022, we conducted our biennial GDA audit and found that GSA was not fully complying with the GDA.<sup>3</sup> GSA excluded geospatial data from its GDA implementation and reporting efforts and was not adhering to geospatial data and metadata standards. These deficiencies occurred because GSA lacked comprehensive, formalized oversight to ensure Agency-wide compliance with the GDA.

In response to our audits, GSA implemented corrective actions designed to address our findings and improve the management and oversight of its Agency-wide GDA compliance. For example, GSA: (1) conducted an assessment to identify and inventory Agency-wide geospatial data, (2) included the FRPP MS in its GDA implementation and reporting efforts, and (3) improved the management of its geospatial metadata. Notwithstanding these corrective actions, we identified deficiencies in GSA's compliance with the GDA, which we describe in the following pages of this report.

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<sup>3</sup> *GSA Is Not Fully Complying with the Geospatial Data Act of 2018* (Report Number A220037/A/T/F23001, October 5, 2022).

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## Results

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GSA is not fully complying with the GDA. We found that GSA's geospatial datasets are not fully reliable, limiting their usefulness. Specifically, GSA's geospatial datasets contain inaccurate latitude and longitude coordinates. Additionally, some of the data contained in GSA's geospatial datasets has data quality deficiencies. Since the datasets are not fully reliable, they are less useful at meeting the GDA's goals to spur economic growth, advance science, and improve public health and other services. We also found that GSA does not have an effective process to meet the GDA's requirement to search for existing geospatial data before procuring new data sources, which could lead to duplicative and unnecessary purchases of geospatial data.

### **Finding 1 – GSA's geospatial datasets are not fully reliable, limiting their usefulness.**

GSA's geospatial datasets are not fully reliable because of inaccurate, incomplete, and invalid data. We found that both the IOLP and FRPP MS datasets contain inaccurate latitude and longitude coordinates. Specifically, we found that some properties were not assigned separate and distinct latitude and longitude coordinates based on the properties' physical location. Additionally, we found other deficiencies in the quality of some of the data contained in GSA's geospatial datasets. Taken together, these deficiencies limit the usefulness of GSA's data and the Agency's ability to meet the GDA's requirement to use geospatial information to enhance operations, support decision-making, and enhance reporting to the public and Congress.

### **Both the IOLP and FRPP MS Datasets Contain Inaccurate Latitude and Longitude Coordinates**

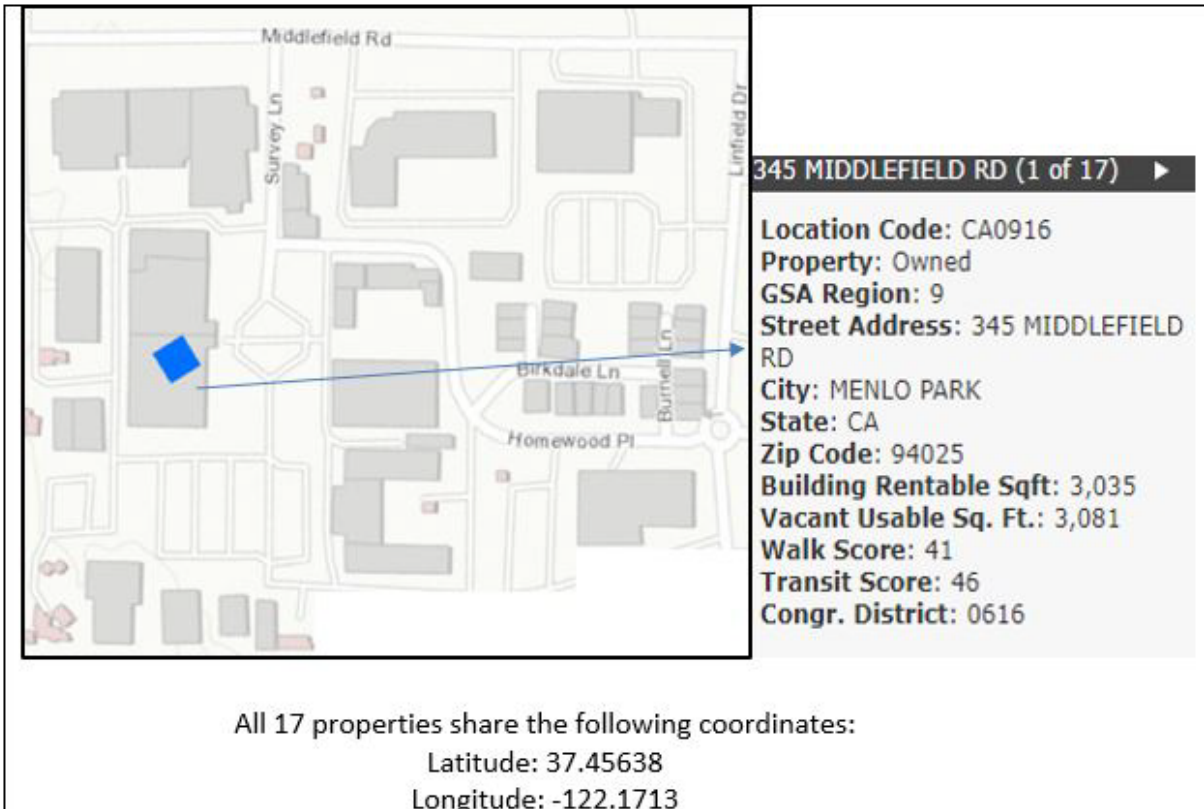
The GDA requires GSA to use accurate geospatial information to enhance operations, support decision-making, and enhance reporting to the public and to Congress. Additionally, the FGDC's 2014 *U.S. Government Real Property Asset Data Standard, a Geospatial Data Content Standard*—the federal government's primary data content standard for geolocating real property assets—requires that each property must have a separate and distinct set of latitude and longitude coordinates. Accurate latitude and longitude coordinates provide precise locations for a property, thereby increasing the quality of GSA's geospatial data. However, we found that both the IOLP and FRPP MS datasets contain inaccurate latitude and longitude coordinates, which prevent the accurate mapping of properties. As a result, users are unable to identify precise locations of some properties in the datasets.

**The IOLP dataset contains inaccurate latitude and longitude coordinates.** GSA's IOLP dataset contains inaccurate latitude and longitude coordinates. Specifically, we found that 719 of 8,618 properties (8 percent) in GSA's IOLP dataset share latitude and longitude coordinates with other properties. This occurred because GSA converts the property's street address to latitude and longitude coordinates instead of computing separate and distinct coordinates for each property based on its physical location. For example, 53 properties on the 176-acre St. Elizabeths West Campus in Washington, D.C., have identical latitude and longitude coordinates in the IOLP dataset.



We also identified inaccurate latitude and longitude coordinates for properties on the U.S. Geological Survey Menlo Park Campus in Menlo Park, California. Specifically, we found that the properties were not assigned separate and distinct latitude and longitude coordinates. The campus has 17 separate properties—the IOLP dataset has the same latitude and longitude coordinates for all of them. The blue square in *Figure 1* below represents the latitude and longitude coordinates that are being used as the location for all 17 properties.

**Figure 1. U.S. Geological Survey Menlo Park Campus Mapped on the IOLP Map Tool**



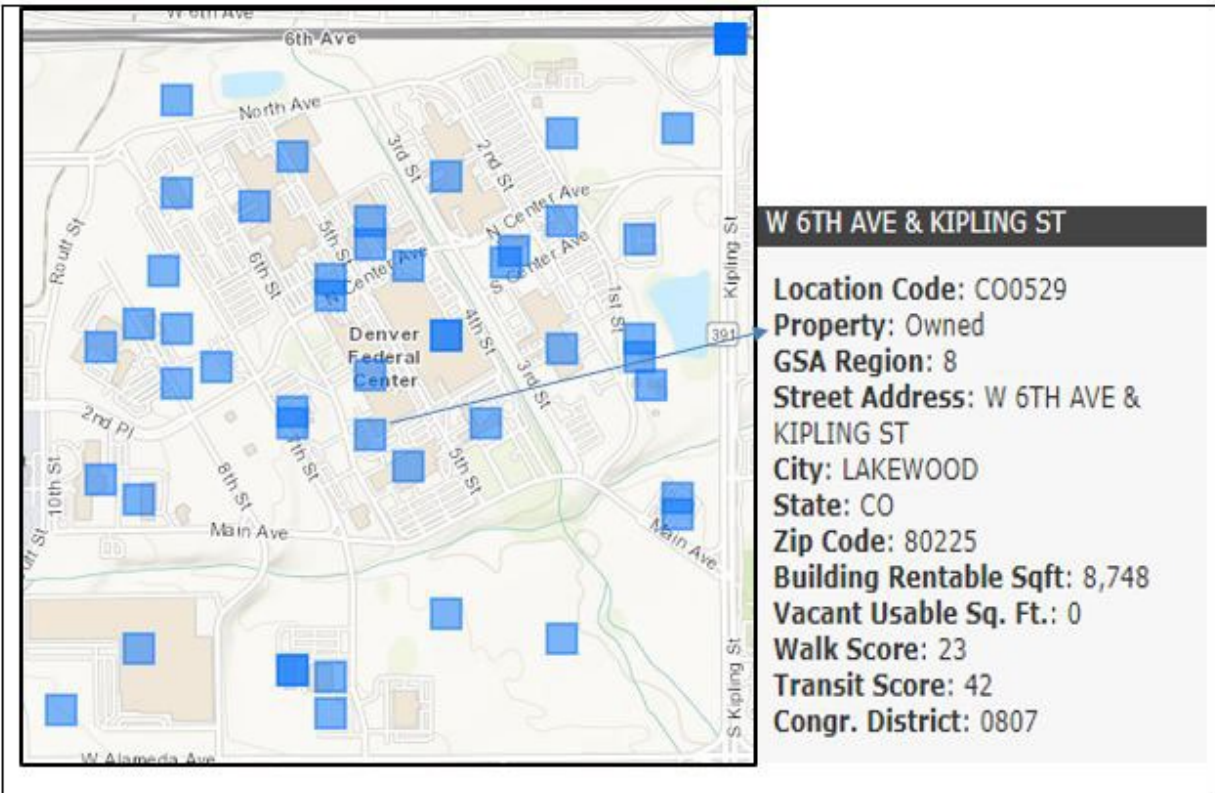
GSA’s Lead Geospatial Coordinator said GSA could not accurately assign latitude and longitude coordinates for individual properties within an installation with the same street address.<sup>4</sup> However, they stated that GSA could add a feature to its system to allow users to determine the precise coordinates of each property. GSA’s Lead Geospatial Coordinator said this would require a thorough analysis to determine a business process for implementation.

Notwithstanding the assertion of GSA’s Lead Geospatial Coordinator, GSA has assigned separate and distinct latitude and longitude coordinates in the IOLP for other installation properties with the same street address. For example, the blue squares in *Figure 2* on the next

<sup>4</sup> Installations are combinations of properties.

page represent 51 different properties at the Denver Federal Center in Lakewood, Colorado, most of which have separate and distinct latitude and longitude coordinates.

**Figure 2. GSA’s Denver Federal Center Mapped on the IOLP Map Tool**



**The FRPP MS dataset contains inaccurate latitude and longitude coordinates.** The FRPP MS dataset contains inaccurate latitude and longitude coordinates. Specifically, we found that 69,134 of 307,975 properties (22 percent) in the FRPP MS dataset share latitude and longitude coordinates with other properties. For example, an installation consisting of 2,127 properties has 929 properties with identical latitude and longitude coordinates. In another instance, a different installation consisting of 2,685 properties has 712 properties with identical coordinates.

The FRPP MS dataset has had problems with the reliability of its geospatial data for several years. In 2020, the U.S. Government Accountability Office reported that some agencies may have entered incorrect values for the latitude and longitude coordinates just to complete the field.<sup>5</sup> The report also stated that GSA identified about 80,000 potential anomalies in its Fiscal Year 2018 data, including coordinates pointing to unlikely locations, such as in a body of water. During our audit, we found a similar issue in the FRPP MS. One agency submitted identical

<sup>5</sup> *Federal Real Property: GSA Should Improve Accuracy, Completeness, and Usefulness of Public Data* (GAO-20-135, February 2020).

incorrect coordinates for 1,754 properties. These coordinates—a repeating series of “1”s—are in the Pacific Ocean.

### **GSA’s Geospatial Datasets Contain Some Inaccurate, Incomplete, and Invalid Data**

In accordance with the GDA, GSA is required to manage its geospatial data so that it can be readily shared. This includes ensuring the data is complete and accurate. Although GSA has worked to improve the reliability of the IOLP and FRPP MS in recent years, we found that GSA’s data validation processes were not entirely effective. As a result, the IOLP and FRPP MS datasets contain some inaccurate, incomplete, and invalid data. These issues are discussed below:

- **IOLP Dataset** – The IOLP dataset has 131 inaccurate Congressional District Representative entries.<sup>6</sup> GSA’s Lead Geospatial Coordinator and staff said the GIS COE performs a weekly data validation check and informs the data owners of inaccuracies. However, GSA’s data validation process does not correct the data before GSA publishes it online. While GSA publishes the IOLP dataset online weekly, GSA’s Lead Geospatial Coordinator said it takes the data owners weeks to correct the inaccurate Congressional District Representative data.
- **FRPP MS Dataset** – Of the FRPP MS dataset’s 113 data elements, 10 are incomplete and 8 have invalid data. See *Figure 3* on the next page. FRPP MS staff acknowledged these data quality deficiencies and stated that they would work with their development team to strengthen their data validation process.

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<sup>6</sup> The Congressional District Representative is the name of the U.S. House of Representatives member for the congressional district of the property. This data field allows IOLP users to search for all properties or leases in a representative’s district.

**Figure 3. FRPP MS Data Quality Deficiencies**

<b>Data Element</b>	<b>Data Quality Deficiency</b>
<b>State Code</b>	228 invalid entries
<b>County Code</b>	1,433 invalid entries
<b>City Code</b>	11 missing entries and 958 invalid entries
<b>Installation Name</b>	142 missing entries
<b>Sub Installation ID</b>	1 missing entry
<b>Field Office</b>	7 missing entries
<b>Field Office Code</b>	141 missing entries
<b>Field Office Collocation Code</b>	126 missing entries
<b>Building Age</b>	18 missing entries
<b>Cannot Currently Be Disposed of Date</b>	1 missing entry
<b>Congressional District</b>	1,473 invalid entries
<b>FASTA Disposal Exclusion Code<sup>7</sup></b>	3,170 missing entries
<b>FASTA Disposal Exclusion Reason Code</b>	3,155 missing entries
<b>Replacement Value</b>	1 invalid entry
<b>Year Asset Reported Underutilized</b>	107 invalid entries
<b>Year of Construction</b>	1,221 invalid entries
<b>Statutory Citation</b>	424 invalid entries

In sum, GSA’s IOLP and FRPP MS datasets contain inaccurate latitude and longitude coordinates that are not based on each property’s physical location as well as other data deficiencies. Taken together, these deficiencies limit the reliability and usefulness of the data for GSA and the public. GSA should correct the specific geospatial data deficiencies identified in our report. Additionally, GSA should implement new controls and strengthen existing controls to ensure that the data in its IOLP and FRPP MS datasets is accurate, complete, and reliable.

**Finding 2 – GSA does not have an effective process to meet the GDA’s requirement to search for existing geospatial data before procuring new data sources.**

The GDA requires agencies to search all sources, including the GeoPlatform, to determine if existing federal, state, local, or private geospatial data meets the needs of the covered agency before expending funds for geospatial data collection.<sup>8,9</sup> However, GSA lacks an effective process to ensure that it complies with this requirement.

<sup>7</sup> FASTA refers to the Federal Assets Sale and Transfer Act of 2016.

<sup>8</sup> GDA Section 759(a)(11).

<sup>9</sup> The GeoPlatform is an internet-based capability that provides geospatial data, services, and applications for use by the public and federal agencies to meet their mission needs.

For example, GSA's Lead Geospatial Coordinator told us that the GIS COE is responsible for conducting a search of the Agency's existing geospatial data for other GSA offices. However, GSA's policies and procedures do not: (1) establish that the GIS COE is responsible for conducting the search for geospatial data or (2) establish a process to ensure that the GIS COE is notified of geospatial data needs prior to contract award.

Furthermore, GSA's Lead Geospatial Coordinator told us that GSA's *GEOSPATIAL DATA Standard Operating Procedure (SOP) and Standards Guide* information is not proactively shared Agency-wide with GSA acquisition staff.

Additionally, while GSA offers voluntary training about geospatial data, the training is primarily intended for users of GSA's geospatial system, instructing them on how to conduct their data searches using that system. The training does not include identifying additional data sources, such as the GSA-wide geospatial inventory, which can be used to meet other geospatial data needs prior to initiating a procurement to obtain the data.

Without an effective process to search all sources to determine if available geospatial data exists before expending funds for the data, GSA is at risk of: (1) noncompliance with the GDA and (2) wasting federal funds on duplicative geospatial data.

Accordingly, GSA should establish a process to ensure that the GIS COE is notified of future geospatial data needs prior to contract award. Additionally, GSA should ensure the Agency searches for existing geospatial data prior to awarding a contract. Lastly, the GIS COE should improve Agency-wide awareness of the GDA requirement to search for existing geospatial data prior to awarding a contract.

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## Conclusion

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GSA is not fully complying with the GDA. We found that GSA's geospatial datasets are not fully reliable, limiting their usefulness. Specifically, GSA's geospatial datasets contain inaccurate latitude and longitude coordinates. Additionally, some of the data contained in GSA's geospatial datasets has data quality deficiencies. Since the datasets are not fully reliable, they are less useful at meeting the GDA's goals to spur economic growth, advance science, and improve public health and other services. We also found that GSA does not have an effective process to meet the GDA's requirement to search for existing geospatial data before procuring new data sources, which could lead to duplicative and unnecessary purchases of geospatial data.

To address these deficiencies, GSA should design processes to improve its latitude and longitude coordinates and address the inaccurate, incomplete, and invalid data in its two publicly available geospatial datasets. GSA should also ensure the Agency searches for existing geospatial data before procuring new data.

## Recommendations

We recommend that GSA's Chief Information Officer:

1. Correct the geospatial data quality deficiencies identified in our report.
2. Implement controls to ensure that the IOLP and FRPP MS datasets contain accurate latitude and longitude coordinates based on each property's physical location except for those properties with a clear exemption for national security.
3. Strengthen the data validation process for the IOLP and FRPP MS datasets to address the geospatial data quality deficiencies identified in our report.
4. Establish a process to ensure GSA searches existing geospatial data before procuring new data, including:
  - a. Ensuring the GIS COE is notified of future geospatial data needs prior to awarding a new contract for geospatial data.
  - b. Improving Agency-wide awareness of the requirement to search existing geospatial data prior to awarding a new contract for geospatial data.

## GSA Comments

In response to our report, GSA partially concurred with our recommendations. While GSA agreed with Recommendation 3, it partially agreed with Recommendation 1 and did not agree with Recommendations 2 and 4. GSA's comments are included in their entirety in **Appendix D**.

## OIG Response

We summarize and respond to GSA's comments to Recommendations 1, 2, and 4 below. For the reasons described in our responses, we reaffirm our recommendations.

**Recommendation 1:** GSA partially concurred with our recommendation to correct the data deficiencies identified in our report but did not clearly state the reason why it partially concurred with this recommendation. In its comments, GSA asserted that the IOLP and FRPP MS datasets are highly accurate but did not dispute that the data errors we identified should be corrected. Therefore, we reaffirm our recommendation.

**Recommendation 2:** GSA did not concur with our recommendation to implement controls to ensure that GSA's IOLP and FRPP MS datasets contain accurate latitude and longitude coordinates based on each property's physical location.

Our finding and recommendation were based on the FGDC's *U.S. Government Real Property Asset Data Standard, a Geospatial Data Content Standard* (RPADS). In disagreeing with our recommendation, GSA writes that the FGDC's RPADS "was established prior to the enactment of the GDA" and is "not subject to the GDA's authority or control." GSA adds that until the FGDC issues standards in response to the requirements of the GDA, "it would be premature to implement controls to align with the RPADS standard"—a standard it later refers to as being "unofficial." GSA also expressed concern about the security implications of adhering to the standard.

GSA is required to comply with the FGDC's RPADS because it is an appropriate data standard as defined under the GDA.<sup>10</sup> GSA is also required to comply with FGDC's RPADS in accordance with Office of Management and Budget Circular A-16, which requires federal agencies to use FGDC-endorsed standards.<sup>11</sup> Contrary to GSA's assertion, the FGDC's RPADS is not an "unofficial" standard. As we note in our report, the FGDC's RPADS is the federal government's primary data content standard for geolocating real property assets. In accordance with this standard, each property must have a separate and distinct set of latitude and longitude coordinates.

Furthermore, GSA's assertions contradict both those of its staff and its current, though inconsistently applied, practices. At the start of this audit, GSA's Lead Geospatial Coordinator told us that GSA recognizes and uses the FGDC's RPADS. This was consistent with GSA's assertions made during our previous audits of the Agency's compliance with the GDA, which we conducted in 2020 and 2022 respectively. Additionally, as noted in our report, GSA has accurately assigned separate and distinct latitude and longitude coordinates for some of its properties based on their physical locations.

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<sup>10</sup> GDA Section 759(a)(6).

<sup>11</sup> Office of Management and Budget Circular A-16, *Coordination of Geographic Information and Related Spatial Data Activities* (August 19, 2002).

Based on the above, we reaffirm our recommendation. However, we agree with GSA that the GDA requires agencies to exclude information from public dissemination for reasons of national security. Accordingly, we revised our recommendation to reflect this exception.

**Recommendation 4:** GSA did not concur with our recommendation to establish a process to ensure that the Agency searches existing geospatial data before procuring new data. In disagreeing with our recommendation, GSA stated that the audit did not identify an instance of GSA purchasing duplicative geospatial data. GSA also asserted that its geospatial data purchases are immaterial. Nonetheless, the GDA requires GSA to search all sources prior to purchasing geospatial data. As noted in our report, GSA does not have an effective process in place to meet this requirement. Therefore, we reaffirm our recommendation.

### **Audit Team**

This audit was managed out of the Information Technology Audit Office and conducted by the individuals listed below:

Sonya Panzo	Associate Deputy Assistant Inspector General for Auditing
Kyle Plum	Audit Manager
James Dean	Auditor-In-Charge
Imani Foster-Wilson	Auditor
Yuanmei Liang	Auditor



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## Appendix A – Objective, Scope, and Methodology

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### Objective

We performed this audit pursuant to GDA Section 759(c), which requires the inspector general of each covered agency to conduct an audit, not less than once every 2 years, of the covered agency's compliance with the GDA. Our audit objective was to assess GSA's fulfillment of its responsibilities under the GDA. Specifically, we assessed GSA's compliance with the 13 requirements listed in GDA Section 759(a).

### Scope and Methodology

We assessed GSA's compliance with the 13 requirements listed in GDA Section 759(a).

To accomplish our objective, we:

- Analyzed previous GSA Office of Inspector General reports on GDA compliance, including the corrective action plan for *GSA Is Not Fully Complying with the Geospatial Data Act of 2018* (Report Number A220037/A/T/F23001, October 5, 2022);
- Reviewed the GDA for the requirements and responsibilities of covered agencies. We also reviewed geospatial data-related guidance and documentation, including:
  - GSA's *GEOSPATIAL DATA Standard Operating Procedure (SOP) and Standards Guide*, Version 2.1 (February 5, 2024);
  - GSA's *2023 Covered Agency Annual Report and Self-Assessment* (January 19, 2024);
  - *GSA Geospatial Data Strategy, Fiscal Years 2023-2025* (undated);
  - GSA's *Data Evidence and Governance Board (DEGB) Roles and Responsibilities*, Version 2 (October 2022);
  - GSA's *Federal Real Property Profile Data Collection Process & Timeline* (undated);
  - *National Spatial Data Infrastructure Strategic Plan, 2021-2024* (November 2020); and
  - Office of Management and Budget Circular A-16, *Coordination of Geographic Information and Related Spatial Data Activities* (August 19, 2002);
- Reviewed applicable geospatial data standards, notably the FGDC's *U.S. Government Real Property Asset Data Standard, a Geospatial Data Content Standard* (2014) (RPADS); and the Federal Real Property Council's *2022 Guidance for Real Property Inventory Reporting*, Version 1 (May 16, 2022) (FRPP Data Dictionary);
- Analyzed the IOLP datasets (16,283 records) published on March 1, 2024, and April 19, 2024, using RPADS;
- Analyzed the FRPP's civilian agencies' Fiscal Year 2022 public dataset (307,975 records) published in October 2023, using the FRPP Data Dictionary;
- Reviewed contract documentation for two contracts containing geospatial data;

- Assessed the design, implementation, and operating effectiveness of relevant internal controls; and
- Interviewed and corresponded with GSA officials and staff involved in geospatial data management, collection, dissemination, acquisition, and preservation, including individuals in the following offices:
  - GIS COE,
  - GSA’s Office of Government-wide Policy’s Real Property Policy Division,
  - Public Buildings Service’s Office of Leasing,
  - Public Buildings Service’s New England Region Acquisition Management Division, and
  - Public Buildings Service’s Office of Portfolio Management.

### **Data Reliability**

We assessed the reliability of GSA’s publicly available IOLP and FRPP MS datasets by performing logical tests (e.g., identifying duplicates, invalid data, missing data, and outliers); reviewing existing system and data documentation (e.g., data dictionaries and system policies); and interviewing dataset managers. Our audit objective did not require us to verify the accuracy of the data with source documentation. Rather, we tested whether the datasets comply with the appropriate data standards. We determined that the data was sufficiently reliable for the purposes of this audit.

### **Internal Controls**

We assessed internal controls significant within the context of our audit objective against GAO-14-704G, *Standards for Internal Control in the Federal Government*. The methodology above describes the scope of our assessment, and the report findings include any internal control deficiencies we identified. Our assessment is not intended to provide assurance on GSA’s internal control structure as a whole. GSA management is responsible for establishing and maintaining internal controls.

### **Compliance Statement**

We conducted the audit between December 2023 and August 2024 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 objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

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## ***Appendix B – Excerpt from the GDA: Section 759(a), Covered Agency Responsibilities***

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### **SEC. 759. COVERED AGENCY RESPONSIBILITIES.**

(a) IN GENERAL.—Each covered agency shall—

- (1) prepare, maintain, publish, and implement a strategy for advancing geographic information and related geospatial data and activities appropriate to the mission of the covered agency, in support of the strategic plan for the National Spatial Data Infrastructure prepared under section 755(c);
- (2) 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;
- (3) promote the integration of geospatial data from all sources;
- (4) ensure that data information products and other records created in geospatial data and activities are included on agency record schedules that have been approved by the National Archives and Records Administration;
- (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 and work in partnership with other Federal agencies, agencies of State, tribal, and local governments, institutions of higher education, and the private sector to efficiently and cost-effectively collect, integrate, maintain, disseminate, and preserve geospatial data, building upon existing non-Federal geospatial data to the extent possible;
- (8) use geospatial information to—
  - (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;
- (9) protect personal privacy and maintain confidentiality in accordance with Federal policy and law;
- (10) participate in determining, when applicable, whether declassified data can contribute to and become a part of the National Spatial Data Infrastructure;
- (11) search all sources, including the GeoPlatform, to determine if existing Federal, State, local, or private geospatial data meets the needs of the covered agency before expending funds for geospatial data collection;
- (12) to the maximum extent practicable, ensure that a person receiving Federal funds for geospatial data collection provides high-quality data; and
- (13) appoint a contact to coordinate with the lead covered agencies for collection, acquisition, maintenance, and dissemination of the National Geospatial Data Asset data themes used by the covered agency.

## Appendix C – CIGIE Letter to Congress



### COUNCIL OF THE INSPECTORS GENERAL ON INTEGRITY AND EFFICIENCY

November 30, 2023

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

The Honorable Frank Lucas  
Chairman  
The Honorable Zoe Lofgren  
Ranking Member  
Committee on Science, Space,  
and Technology  
U.S. House of Representatives  
Washington, D.C.

Dear Chairpersons and Ranking Members:

The Council of the Inspectors General on Integrity and Efficiency (CIGIE) appreciates your leadership on geospatial data issues. The Geospatial Data Act of 2018<sup>1</sup> (the Act) mandates oversight through Federal Inspectors General (IG) to ensure effective implementation of the related requirements. Specifically, the Act requires biennial IG audits to evaluate the following:

1. Covered Agencies' compliance with geospatial data and metadata standards established under the Act.
2. Covered Agencies' compliance with responsibilities outlined in the Act.
3. Covered Agencies' compliance with the limitation of Federal funding for noncompliant datasets.<sup>2</sup>

We are writing this letter on behalf of CIGIE to inform you about an important timing concern related to the biennial audits conducted by the IG community. The standards required for implementation of the Act by Covered Agencies have not yet been issued by the Federal Geographic Data Committee (FGDC). As of now, there is no projected release date available. Consequently, the full implementation of the Act is delayed, which in turn limits the IG community's ability to conduct a comprehensive biennial audit in Fiscal Year 2024. We cannot assess compliance with two of the three audit requirements (specifically, audit evaluation tasks 1 and 3 listed above). To address this challenge, CIGIE has taken proactive measures to establish a consensus within the IG community on an audit approach for the Fiscal Year 2024 audits.

After careful deliberation and similar to our prior audits, the Covered Agency IG representatives have concluded that audits focused on assessing the progress of Covered Agencies toward compliance with the Act, including their adherence to the Act's requirements outlined in section 759(a), 43 U.S.C. § 2808(a), would offer the most value to the covered agencies, Congress, and the Public.

<sup>1</sup> Pub. L. No. 115-254, Subtitle F (2018), codified at 43 U.S.C. §§ 2801-2811.

<sup>2</sup> 43 U.S.C. § 2808(c).


In our view, this approach is appropriate due to the inherent challenges in determining the precise standards that audits should utilize to assess compliance at this time. Moreover, it is important to note that the limitation on the use of Federal funds for noncompliant geospatial data will not apply until 5 years after FGDC's establishment of standards. As such, compliance with the limitation is not yet auditable.

This approach would provide each Covered Agency IG with the flexibility to conduct additional testing as needed, depending on the geospatial footprint of the respective covered agency. The relevant IG would make this determination as they see fit.

Furthermore, among the 16 federal agencies specified under the Act, more than half of them do not accumulate or publish substantial or significant volumes of new geospatial assets on a biennial basis. Consequently, many IG audit teams are contemplating the adoption of weighted or risk-based approaches. Additionally, the CIGIE Legislation Committee has encouraged Congress to repeal the requirement that IGs conduct a biennial audit to allow IGs the flexibility to assess the risks of geospatial data at the agencies they oversee and provide a cost-effective, risk-based review if appropriate.

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 202-208-5475. In the alternative, please feel free to have your staff contact Andrew Cannarsa, CIGIE's Executive Director, at 202-292-2603.

Sincerely,



Mark L. Greenblatt  
Chair, Council of the Inspectors General  
on Integrity and Efficiency  
Inspector General  
U.S. Department of the Interior



Robert P. Storch  
Chair, Council of the Inspectors General on  
Integrity and Efficiency, Technology  
Committee  
Inspector General, U.S. Department of Defense

cc: The Honorable Gary C. Peters, Chairman  
The Honorable Rand Paul, Ranking Member  
Committee on Homeland Security and Government Affairs

The Honorable James Comer, Chairman  
The Honorable Jamie Raskin, Ranking Member  
House Committee on Oversight and Accountability

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

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## Appendix D – GSA Comments

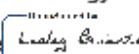
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September 20, 2024

**MEMORANDUM FOR:** Sonya Panzo  
Associate Deputy Assistant Inspector General for Auditing  
Information Technology and Finance Audit Office (JA-T)

**FROM:** David Shive   
Chief Information Officer  
Office of GSA IT (I)

**SUBJECT:** Response to the Draft Report *Audit of GSA's Compliance with the Geospatial Data Act of 2018 (A240028)*

Thank you for the opportunity to review the Office of Inspector General (OIG) DRAFT *Audit of GSA's Compliance with the Geospatial Data Act of 2018 (A240028)*.

The General Services Administration (GSA) partially concurs with the recommendations provided in the report. While GSA appreciates the OIG's efforts to provide recommendations, which will aid in the improvement of the agency's compliance with the Geospatial Data Act (GDA), GSA does not concur with recommendations 002 and 004 and partially concurs with recommendation 001. GSA concurs with recommendation 003.

In the enclosure below, GSA provides an explanation for those areas where we disagree with the report. Where we concur, GSA will document actions to be taken to address the recommendations in a Corrective Action Plan (CAP).

If you have any questions, please contact Mick Harris, GSA IT Audit Liaison, at (703) 605-9376.

Enclosure: GSA Response to Draft Report (A240028)

U.S. General Services Administration  
1800 F Street NW  
Washington, DC 20405  
[www.gsa.gov](http://www.gsa.gov)

**Enclosure**  
**GSA's Response to Draft Report (A240028)**

**GSA Response to OIG Recommendations**

- **OIG Recommendation #1 - Correct the geospatial data quality deficiencies identified in our report.**

GSA partially concurs with recommendation 001. GSA agrees that it is important to correct data-quality issues and, as cited in GSA's strategic plan, is working toward improving the consistency and accuracy of Government-wide real property data. However, both the Inventory of Owned and Leased Properties (IOLP) and Federal Real Property Profile Management System (FRPP MS) datasets had a high degree of accuracy at the time the audit began. The data in the IOLP dataset had a 98.5 percent accuracy rate. As of August 30, 2024, the data accuracy rate was 99.8 percent. In the most recent FRPP MS dataset (from FY 2023), 95.8 percent of assets could be displayed geospatially.

GSA agrees improvements in the accuracy of Congressional District Representative data are possible and accordingly has implemented a process to improve the accuracy of these entries and continues to perform weekly data reviews in the IOLP. The data quality deficiencies identified by the IG in the FRPP MS had previously been identified prior to the start of the audit. GSA has been working with over 50 agencies that submit data to the FRPP MS to correct those errors.

GSA will document the actions taken to address the data-quality issues in a corrective action plan.

- **OIG Recommendation #2 - Implement controls to ensure that the IOLP and FRPP MS datasets contain accurate latitude and longitude coordinates based on each property's physical location.**

**Management Response:** GSA does not concur with recommendation 002. In the report, the IG references the Federal Geographic Data Committee's (FGDC) *U.S. Government Real Property Asset Data Standard, a Geospatial Data Content Standard (RPADS)* as the basis for individual properties within an installation with the same street address needing individual latitude and longitude coordinates. The RPADS standard was established prior to the enactment of the GDA.

To date, the FGDC has not finished the process of developing and promulgating any standards, including but not limited to RPADS, as required by Section 757 of the GDA. While the FGDC has stated that many standards approved by the FGDC prior to the enactment of the GDA "provide value and improve interoperability," these standards are not subject to the GDA's authority or control; it follows that ensuring compliance with these standards is not currently within the scope of Federal agencies GDA-covered

agency responsibilities. It is not clear when the FGDC will establish standards under the Act and whether those standards will include the RPADS standard. However, GSA believes that it would be premature to implement controls to align with the RPADS standard or other such standards or policies at this time.

GSA also has concerns with the security implications of relying upon this unofficial standard. The Act offers an exception "from public disclosure any information the disclosure of which reasonably could be expected to cause damage to the national interest, security, or defense of the United States."<sup>1</sup> GSA is aware of several instances where agencies have already raised objections to the implementation of this standard due to security concerns. Utilizing a standard that was endorsed by the FGDC prior to the enactment of the GDA does not account for this exemption.

- **OIG Recommendation #3 - Strengthen the data validation process for the IOLP and FRPP MS datasets to address the geospatial data quality deficiencies identified in our report.**

**Management Response:** GSA concurs with recommendation 003. GSA has already taken steps to address inaccurate IOLP and FRPP MS data. For IOLP, this involved working with the feeder systems to improve data input and then running weekly data-quality processes to identify any issues needing further correction. For FRPP MS, the missing data entries identified in the FY22 dataset for City Code, Sub-installation IDs, Field Office Code, Field Office Collocation Code, Building Age and Statutory Citations are no longer an issue in the FY23 dataset. We worked with our IT development team to tighten business rules within the FRPP itself, as well as working with the team that extracts the data from the overall system to ensure that proper filters were being applied to the Public Dataset.

GSA will document the actions taken to improve data validation processes in a corrective action plan.

- **OIG Recommendation #4 - Establish a process to ensure GSA searches existing geospatial data before procuring new data, including:**
  - a. **Ensuring the GIS COE is notified of future geospatial data needs prior to awarding a new contract for geospatial data.**
  - b. **Improving Agency-wide awareness of the requirement to search existing geospatial data prior to awarding a new contract for geospatial data.**

**Management Response:** GSA does not concur with recommendation 004. The audit did not identify an instance of GSA contracting actions resulting in purchases of duplicative Geographic Information System (GIS) data. Based on GSA's analysis, GIS data is less than 0.01 percent of our annual spend by dollars and less than 0.0003

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<sup>1</sup> Geospatial Data Act of 2018, Pub. L. No. 115-254, division B, title VII, subtitle F, § 757(c) (codified at 43 U.S.C. § 2806(c)).



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percent of our contracting actions. GSA's existing controls are sufficient to meet the GDA requirements.

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## ***Appendix E – Report Distribution***

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GSA Administrator (A)

GSA Deputy Administrator (AD)

Chief Information Officer (I)

Acting Deputy Chief Information Officer (ID)

GSA IT Chief of Staff (I)

Chief Information Security Officer (IS)

Associate Chief Information Officer for Public Buildings IT Services (IDP)

Data Integration Services & Cloud Operations Division Director (IDPD)

Acting Associate Administrator for Government-wide Policy (M)

Office of Government-wide Policy, Real Property Policy Division Director (M1AC)

Chief Financial Officer (B)

Office of Audit Management and Accountability (BA)

Assistant Inspector General for Auditing (JA)

Deputy Assistant Inspector General for Acquisition Audits (JA)

Deputy Assistant Inspector General for Real Property Audits (JA)

Director, Audit Planning, Policy, and Operations Staff (JAO)