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FEDERAL GEOGRAPHIC DATA COMMITTEE

2022 Covered Agency Annual Report and Self-Assessment

for
Department of Commerce

Geospatial Data Act of 2018
Section USC 43 Sec 2808(a) Requirements

February 4, 2023

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Introduction

The Geospatial Data Act of 2018 (GDA) was signed into law on October 5, 2018. The GDA was included as a component of the FAA Reauthorization Act (H.R. 302, P.L. 115-254). The GDA is now in U.S. Code, Title 43 – Public Lands, Chapter 46: GEOSPATIAL DATA.

USC 43 Sec 2808(b) of the Geospatial Data Act (GDA) requires each covered agency[1] to submit to the Federal Geographic Data Committee (FGDC) "an annual report regarding the achievements of the covered agency in preparing and implementing the strategy described in subsection (a)(1) and complying with the other requirements under subsection (a)." [https://fgdc.gov/gda/online]

This document serves as the Department of Commerce's annual report to the FGDC covering Fiscal Year 2022, October 1, 2021 through September 30, 2022. The report was developed through a self-assessment template developed by the FGDC agencies. Annual reports span one fiscal year. The report includes a rating for each covered agency responsibility of "meets expectations," "made progress toward expectations," or "fails to meet expectations," as required by the GDA. A summary and evaluation of all the covered agency reports will be generated by FGDC and provided to the National Geospatial Advisory Committee (NGAC) for review and comment. The summary reports, along with the NGAC comments, will also become part of the biennial FGDC GDA report to Congress and will be published online via the FGDC GDA pages [https://fgdc.gov/gda].

This report is based on a standardized questionnaire and self-assessment score for each covered agency responsibility. The Department of Commerce has maintained documentation supporting the responses provided for this assessment. This information may be reviewed as part of the biennial Inspector General (IG) audits of covered agencies.

A recommended self-assessment key has been provided for each responsibility. In some cases, optional text is provided for additional insights or to justify a self-assessment selection. Any optional responses provided are not a factor in the self-assessment.

Where data or datasets are referenced,[2] information relates to all geospatial datasets owned or managed by the Department of Commerce that are, or should be, available to the public.

To support a more comprehensive picture of agency compliance and related activities, each agency had the option to submit up to a 2-page document, using the survey, as part of the agency's submission. If provided, the document may include highlights and examples that can supplement the FGDC report to Congress, support the feedback process with the NGAC, or provide context to Office of the Inspector General (OIG) findings.

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[1] GDA definition of *agency*: https://www.fgdc.gov/gda/online#the-term-''covered-agency''—means—an-executive-department-as-def

[2] GDA definition of *geospatial data*: https://www.fgdc.gov/gda/online#the-term-%E2%80%98%E2%80%98geospatial-data%E2%80%99%E2%80%99%E2%80%94means-information-that-is-tied-to-a

Self-Assessment for Department of Commerce

USC 43 Sec 2808(a)(1) Covered Agency Geospatial Strategies

GDA Requirement	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
Agency Self-Assessment	**Meets Expectations**

KEY to Self-Assessment	• **Meets expectations =**
	    ○ Yes to Question 1.1 and 1.2
	 • **Made progress toward expectations =**
	    ○ Yes to Question 1.1 **and** No to Question 1.2
	 • **Fails to meet expectations =**
	    ○ No to Question 1.1 and 1.2

Table 1. GDA USC 43 Sec 2808(a)(1) Covered Agency Geospatial Strategies Requirement and Self-Assessment Criteria.

Clarifying Text: FGDC developed and released a national strategic plan for the development of the National Spatial Data Infrastructure (NSDI) [the GDA, USC 43 Sec 2804(c)], which was approved by the FGDC Steering Committee in November 2020. Covered Agency Geospatial Strategies [the GDA, USC 43 Sec 2808(a)(1)], which will support the goals in the NSDI strategic plan, were due to be completed and submitted for agency approval by February 26, 2021, per FGDC guidance. For more information, please visit http://fgdc.gov/nsdi-plan.

1.1 Is your agency's strategy complete, approved, and being implemented?

- Yes

1.2 Is your agency's strategy published? If yes, please provide the URL or briefly describe how public access is being provided.

- Yes

https://www.commerce.gov/sites/default/files/2021-07/US-Dept-of-Commerce-Geospatial-Strategy-FY21-24.pdf

1.3 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(1), "Prepare and implement a strategy for advancing geospatial data activities appropriate to the agency's mission." If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

The U.S. Department of Commerce (DOC) Geospatial Strategy for FY21-FY24 (Strategy) was published in July 2021. Subject matter experts coordinated across Commerce to provide input to the plan, including

the Commerce Data Governance Board (CDGB). The Strategy describes the actions the Commerce geospatial community will take in collaboration with partners and the FGDC. The Commerce Geospatial Strategic Plan is tightly integrated with the draft Commerce Open Data Plan. The Geospatial Strategic Action Plan (Action Plan) was published in October 2021. The Action Plan outlines the priority actions for FY22 and provides a roadmap for the implementation of the Strategy for FY21-FY24.

The Department of Commerce Office of the Inspector General interviewed the Senior Agency Official for Geospatial Information (SAOGI) and the Commerce Geospatial Working Group (CGWG) Co-Chairs to review the Strategy and Action Plan and verified that it directly supports the Commerce Data Strategy and the goals and objectives of the National Spatial Data Infrastructure (NSDI) Strategic Plan. Appendix B: Summary of the Department's Progress Implementing GDA Responsibilities in Final Report No. OIG-22-032-A (September 22, 2022) is a summary of the Department's progress in implementing requirement 1 under 43 U.S.C. § 2808(a).

Accomplishments in FY22 include: Completed Geospatial Data Act (GDA) Reporting Products for Commerce's National Geospatial Data Asset (NGDA) portfolio, Completed the 2022 OIG GDA Audit and associated DOC Audit Action Plan, Published NGDA inventory to data.gov and GeoPlatform.gov, Chaired the CGWG to ensure cross Bureau coordination and communication of geospatial priority activities, Chaired the Commerce Imagery Users' Group (CIUG) focused on imagery requirements and usage, and Reported on Commerce wide geospatial requirements, NGDA activities, and implementation of applicable geospatial policies to the Commerce CDO, the CDGB, and the FGDC GDA Working Group.

GDA Requirement	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 Self-Assessment	**Meets Expectations**

KEY to Self-Assessment	• **Meets expectations =**
	   ○ *Data is currently shared* selections for **all** agency appropriate parties for Question 2.1 and Yes to Questions 2.2 and 2.3
	• **Made progress toward expectations =**
	   ○ *Data is currently shared* selections for **some** appropriate parties for Question 2.1, **or** Question 2.2 and 2.3 have a mix of answers
	• **Fails to meet expectations =**
	   ○ No to Questions 2.1, 2.2, and 2.3

Table 2. GDA USC 43 Sec 2808(a)(2) Support Data Sharing Requirement and Self-Assessment Criteria.

Clarifying text:

✓ This section does not include efforts related to partners, which are covered under Question 7, USC 43 Sec 2808(a)(7).

✓ Review the GDA definition of geospatial data to consider the questions in this section.

✓ Remember, your agency's answers should include information about all geospatial datasets owned or managed by your agency that are, or should be, available to the public in accordance with agency statutory authorities and missions; not just National Geospatial Data Asset (NGDA) Datasets.

✓ Sharing data on the Internet using open standards, protocols and formats makes it part of the NSDI.

✓ Additional detail on the definition of geospatial data may be provided by OMB Circular A-16 when finalized.

✓ Geospatial data that will not or cannot be distributed to the public does not need to be considered for GDA-related responses as per the GDA.

2.1 Does your agency ensure that all eligible geospatial data is managed so it can be readily shared and is it provided in open formats, as appropriate? (This will include agency open government and transparency guidelines.) (Select all that apply)

• Data is currently openly shared to the public.

2.2 Does your agency disseminate eligible geospatial data in a way that can be readily shared in open formats (for example, using machine readable formats or searchable metadata)? (Select all that apply)

• Yes, eligible geospatial data and metadata are shared in open formats.

2.3 Are maintenance processes in place to ensure other federal agencies and non-federal users have access to the most recent data in addition to data and metadata updates and corrections? (Select all that apply)

- Yes, agency policies exist to ensure all programs implement data maintenance processes.

2.4 Optional Question: Would the agency like to provide up to 5 key examples of ongoing or planned activities that ensure eligible geospatial data and associated metadata can be easily shared, understood, and re-used by others, now and in the future?

- Yes

Planned or Ongoing Activities	Description
Commerce Geospatial Data Catalogs on the GeoPlatform	Listed below are the NGDA Theme Community pages that are in progress for Commerce: https://ngda-climate-and-weather-geoplatform.hub.arcgis.com/ https://ngda-elevation-geoplatform.hub.arcgis.com/ https://ngda-geodetic-control-geoplatform.hub.arcgis.com/ https://ngda-water-oceans-and-coasts-geoplatform.hub.arcgis.com/ https://ngda-gov-units-geoplatform.hub.arcgis.com/ https://ngda-address-geoplatform.hub.arcgis.com/
National Oceanic and Atmospheric Administration (NOAA) Data Discovery Portal	The NOAA Data Catalog can be accessed here: https://data.noaa.gov (and searched here: https://data.noaa.gov/datasetsearch/). This is an inventory of all NOAA data collections and includes 91,948 datasets with fully compliant metadata. The user interface allows web-based searching by keywords and other attributes; machine-to-machine searching is available using the OGC CSW protocol (Open Geospatial Consortium Catalog Service for the Web).
Data.gov Catalogs	Both Census and NOAA have published agency data catalogs via the data.gov website. These can be found at: https://catalog.data.gov/organization/census-gov https://catalog.data.gov/organization/noaa-gov
NOAA provides a variety of our geospatial mission related data to the public using standard protocols and formats such as ArcGIS rest services.	NOAA's National Weather Service (NWS) GIS Portal: https://www.weather.gov/gis/ for importing data into a GIS, map viewers, or web pages. NOAA provides nautical charts, hydrographic surveys, and maritime boundaries: https://gis.charttools.noaa.gov/arcgis/rest/services; NOAA's bathymetry, ocean observations and monitoring, and marine habitats data: https://gis.ngdc.noaa.gov/arcgis/rest/services; NOAA's climate observations and monitoring data: https://gis.ncdc.noaa.gov/arcgis/rest/services

Planned or Ongoing Activities	Description
Census Bureau Geographic Support Program (GSP)	Many of the GSP data sets are available in formats that can be imported directly into a GIS or custom map viewers or web pages, i.e., Shapefiles, KML, web services (see https://www.census.gov/programs-surveys/geography.html). Census geography can be combined with statistical data collected from censuses and surveys. 2020 Census data can be found at https://www.census.gov/programs-surveys/decennial-census/decade/2020/2020-census-main.html

Table 2.a. Optional Information Regarding Ongoing or Planned Geospatial Data Sharing Activities.

2.5 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(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." If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

The Commerce Office of the Chief Data Officer, in coordination with the Inventory Working Group (IWG) of the Commerce Data Governance Board (CDGB), is developing a pilot Commerce-wide data sharing agreement. The IWG is collecting information from each of the Commerce Bureaus on existing data sharing policies and approaches.

All geospatial data that Commerce produces from its programs and partnerships is openly available online except for data protected from disclosure. For example, Commerce does not release Personally Identifiable Information (PII) as defined by the Privacy Act of 1974. In addition, some NOAA Fisheries data are protected from disclosure under the Magnuson-Stevens Fishery Conservation and Management Act, and some Census Bureau data including addresses and structure points are protected by 13 U.S.C. § 9. Commerce provides long-term stewardship and preservation of our data per NARA guidelines.

The NOAA Data Documentation Procedural Directive provides guidance on documenting geospatial data using federal/international metadata standards before dissemination. Commerce follows the Open Geospatial Consortium's (OGC's) Implementation Standards for geospatial data: Web Map Service (WMS), REST, GeoPDF, and KML.

The NOAA Chief Scientist recently published the following addressing the 2022 Office of Science and Technology Policy (OSTP) updated guidance on Public Access to Research Results PARR): https://libguides.library.noaa.gov/OSTP_PARR-Implementation. As of December 2022, the NOAA Science Council and the NOAA Observing Systems Council have approved Terms of Reference for a NOAA PARR Working Group who will be tasked with responding to the OSTP memo and revising the existing NOAA PARR Plan. The working group is co-chaired by representatives from the NOAA Research and Development Enterprise Committee (RDEC) and the Data Governance Committee (DGC).

GDA Requirement	Promote the integration of geospatial data from all sources
Agency Self-Assessment	**Meets Expectations**

KEY to Self-Assessment	• **Meets expectations =**
	   o Yes to Question 3.1
	• **Made progress toward expectations =**
	   o Partial to Question 3.1
	• **Fails to meet expectations =**
	   o No to Question 3.1

Table 3. GDA USC 43 Sec 2808(a)(3) Promote Data Integration Requirement and Self-Assessment Criteria.

3.1 Has your agency taken action to promote integration of data from multiple sources?

- Yes. The agency has taken appropriate action to promote data integration.

3.1.a If yes or partial to Question 3.1, in what ways does your agency promote data integration from multiple sources? (Select all that apply)

- Hosts a data sharing infrastructure where partners and/or data users can share and discover data.
- Develops a data integration toolkit or APIs to promote integration of agency data in external applications.
- Develops data integration processes to promote integration of non-agency data into applications.
- Provides data in openly standardized readable formats or as downloadable file packages.
- Develops data sharing agreements or Memoranda Of Agreement (MOA) with public and private partners for ingest or sharing of data.

3.2 Brief Summary (Limit 2000 characters or 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(3), "promote the integration of geospatial data from all sources." If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

Commerce promotes the integration of geospatial data from all sources. The Census Bureau continued to integrate high-quality address, feature, and boundary data provided by more than 40,000 tribal, federal, state, and local government partners through our partnership programs, such as the Boundary and Annexation Survey, into the Master Address File/Topologically Integrated Geographic Encoding and Referencing (MAF/TIGER) System.

All geographic data stored in the MAF/TIGER System is reviewed for accuracy and completeness, including roads, rivers, lakes, railroads, addresses, and geographic boundaries. The Census Bureau uses geospatial data from tribal, state, and local governments as sources for national datasets to improve the accuracy of data tabulated and disseminated by the Census Bureau including the 2020 Census, the Economic Census, the American Community Survey, and Population Estimates Program.

NOAA promotes data discovery and access platforms such as the NOAA GeoPlatform, US GeoPlatform, Digital Coast, and other systems to enhance data availability and promote data integration.

In partnership with NOAA and the Department of the Interior (DOI), the Biden-Harris administration launched the Climate Mapping for Resilience and Adaptation (CMRA) portal in 2022. CMRA integrates information across the federal government to help people consider their local exposure to climate-related hazards. Much of this information is not new. The new portal builds on years of scientific knowledge and investments in geospatial platforms. Still, in the past, these resources have been difficult to find and understand, particularly since they were not integrated to provide a more complete picture. That is where geographic information system (GIS) technology plays a key role, integrating information to help data analysts and users understand complex problems in the crucial context of location.

GDA Requirement	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
Agency Self-Assessment	**Meets Expectations**

KEY to Self-Assessment	• **Meets expectations =**
	  ○ Yes to Questions 4.1 and 4.2
	• **Made progress toward expectations =**
	  ○ Yes or Partial to Questions 4.1 and 4.2 **or**
	  ○ No to either 4.1 or 4.2
	• **Fails to meet expectations =**
	  ○ No to Questions 4.1 and 4.2

Table 4. GDA USC 43 Sec 2808(a)(4) Ensure Records Retention Schedule for Geospatial Data Requirement and Self-Assessment Criteria.

4.1 To ensure approved National Archives and Records Administration (NARA) schedules are in place, does the appraisal process for your agency to determine which data is archived include geospatial data?

- Yes. The agency program's archiving appraisal process is inclusive of data information products and other records created in geospatial data and activities.

4.2 Are geospatial data assets included on agency record schedules?

- Yes. Agency record schedules are inclusive of data information products and other records created in geospatial data and activities.

4.3 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(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." If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

The most recent Census Bureau geospatial data products and records have been entered into the 2020 Census Bureau Records Schedule (DAA-0029-2019-0004) approved by the NARA in December 2019. See also: "Updates to the 2020 Archiving Operation Detailed Operational Plan" 2020 Census Program Memorandum Series: 2021.13. Beginning in FY22, all Census Bureau employees must have records management language in their performance plans to adhere to the records schedule and to ensure that the Agency complies with federal laws and regulations, Census Bureau policies, and best practices for managing records. All employees are required to complete two annual Records Management courses.

The Census Bureau's Decennial Information Technology Division (DITD) transfers the files from the MAF/TIGER System to the Census Enterprise Data Lake (EDL). From there, the files are transferred to

NARA. The following have been transferred since February 2022: 1) 2020 Census Map Products; 2) 2020 Census Redistricting Data (P.L. 94-171) Shapefiles; 3) ZIP Code Tabulation Area Shapefiles.

NOAA records management program responsibilities are outlined in NAO 205-1, NOAA Records Management Program (https://www.noaa.gov/organization/administration/nao-205-1-noaa-records-management-program). NOAA has numerous records schedules covering geospatial content related to remote sensing, nautical charts, forecasting maps, aerial photography and geodetic surveys. The NOAA records schedules associated with geospatial records can be found in chapters 1300, 1400, 1500, and 1600 of the NOAA Records Schedules and are accessible with a NOAA account. The applicable record schedules specify whether records and data are transferred to the NOAA National Centers for Environmental Information (NCEI) data archive, Federal Records Center (FRC), or if they are destroyed or accessioned in NARA for permanent preservation.

USC 43 Sec 2808(a)(5) Allocate Resources for Geospatial Data Management Responsibilities

GDA Requirement	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
Agency Self-Assessment	**Meets Expectations**

KEY to Self-Assessment	• **Meets expectations =**
	  ○ Yes to Question 5.1
	• **Made progress toward expectations =**
	  ○ Partial to Question 5.1
	• **Fails to meet expectations =**
	  ○ No to Question 5.1

Table 5. GDA USC 43 Sec 2808(a)(5) Allocate Resources for Geospatial Data Management Responsibilities Requirement and Self-Assessment Criteria.

5.1 Are geospatial program resources (including full- or part-time federal employees or contractors) allocated 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? (Select the most appropriate answer and provide context for your agency's response in Question 5.2.)

Clarifying text: Analyses of the requirements for the GDA are ongoing and it is anticipated that agencies will answer based on currently understood or anticipated requirements. Additional details can be provided in the 5.2 Brief Summary and in your agency's 2-page PDF in Appendix B (if provided).

- Yes

5.2 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(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." If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

For the current reporting period, Commerce was able to allocate sufficient resources to fulfill these required GDA planning and reporting responsibilities. Staff across the department devoted substantial time to data collection, production, and stewardship along with GDA action planning and reporting, including extensive reviews of the Covered Agency (CA) and Lead Covered Agency (LCA) reporting templates, in addition to the usual mission-related geospatial data management. As GDA implementation continues to ramp up in the future, there is concern that level funding would create a conflict between mission requirements and GDA reporting/administrative and mission responsibilities.

USC 43 Sec 2808(a)(6) Use Data Standards

GDA Requirement	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
Agency Self-Assessment	**Made Progress Toward Expectations**

KEY to Self-Assessment	• **Meets expectations =**
	    ○ Yes to Questions 6.1, 6.2 and 6.3
	• **Made progress toward expectations =**
	    ○ Any other combination of Yes, No, and Partial to Questions 6.1, 6.2, and 6.3
	• **Fails to meet expectations =**
	    ○ No to Questions 6.1, 6.2, and 6.3

Table 6. GDA USC 43 Sec 2808(a)(6) Use Data Standards Requirement and Self-Assessment Criteria.

Clarifying Text:

✓ Reestablishment of an active, resourced, and sustainable standards process with supporting governance is currently under consideration by the FGDC (Committee).
✓ The FGDC has not yet established any standards under the GDA, USC 43 Sec 2806.
✓ Answers should include information about all geospatial datasets owned or managed by your agency that are, or should be, available to the public in accordance with agency statutory authorities and missions; not just National Geospatial Data Asset (NGDA) Datasets.

6.1. Are defined data standards used in collecting, processing, and/or disseminating the data being addressed? (Select all that apply)

• Yes. Eligible geospatial datasets use FGDC endorsed data standards under OMB A-16, 2002, or more current versions of those endorsed standards.
• Yes. Eligible geospatial datasets use data standards that comply with OMB Circular A-119.

6.2 Does your agency maintain its metadata in an FGDC-endorsed, or ISO-compliant geospatial metadata standard format? (Select all that apply)

Clarifying text: Question does not include legacy datasets that are static and no longer modified or otherwise managed. Also, see the list of endorsed FGDC-endorsed standards https://www.fgdc.gov/standards/.

• Partial. Some eligible datasets have well maintained FGDC-endorsed or current ISO-compliant geospatial metadata.

6.3 Is your agency geospatial metadata available through GeoPlatform.gov?

Clarifying Text: For the scope of the requirement, USC 43 Sec 2808(b)(1)(A)(iv) provides for "includ[ing] download access to all open geospatial data directly or indirectly collected by covered agencies" and Sec 2808(a)(6) requires that "metadata [be] available through the GeoPlatform."

- Partial. Some metadata for some public datasets are available via GeoPlatform.gov.

6.4 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(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." If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

Registration of all Commerce geospatial data into the GeoPlatform has yet to occur due to the site not successfully harvesting all agency geospatial data holdings. The GeoPlatform has recently transitioned from a WordPress environment to an ArcGIS Hub environment. During this transition, the FY22 harvesting of agency geospatial data holdings prioritized NGDAs only.

Commerce has adopted the FGDC Technical Guidance: Data.gov and The GeoPlatform Metadata Recommendations (October 27, 2021) to inform changes to the metadata creation software requirements and our QC process. The Department of Commerce uses geospatial metadata standards for the 34 Census Bureau NGDAs and 25 NOAA NGDAs harvested yearly to Data.gov and the GeoPlatform. The Census Bureau and NOAA both maintain licenses for various ISO standards. NOAA also applies voluntary consensus standards from the International Hydrographic Office, World Meteorological Organization, and the International Association of Geodesy.

Established in April 2021, the Commerce Geospatial Standards Users' Group (CGSUG) promotes the exchange of information among members regarding geospatial standards topics such as metadata, data content, and data dissemination. In FY22, CGSUG activities included conversations with Commerce Chief Data Officers (CDOs) on cataloging metadata through DCAT, and a meeting with representatives from the Open Geospatial Consortium (OGC) on "Getting the most out of the GDA: Community Engagement, Standards, and Innovation." Additional presentations from NOAA on the STAC API, and Census Bureau's Geospatial Standards Working Group (CBGSWG), as well as a "FY22 year in review" were delivered by Commerce participants and the CGSUG Executive Champions. Commerce participation at the 2022 NOAA Environmental Data Management Workshop (September 12-16, 2022) included sessions and tutorials on ISO metadata management with CoMET, present needs, and future goals for metadata.

GDA Requirement	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
Agency Self-Assessment	Meets Expectations

KEY to Self-Assessment	• **Meets expectations =**
	  o Yes to Questions 7.1 and Yes or Not applicable to Question 7.2
	• **Made progress toward expectations =**
	  o Any combination of Yes, Not applicable, Partial, or No to Questions 7.1 and 7.2
	• **Fails to meet expectations =**
	  o No to Questions 7.1 and 7.2

Table 7. GDA USC 43 Sec 2808(a)(7) Support Coordination and Partnerships Requirement and Self-Assessment Criteria.

7.1 Are there processes in place to ensure that, when appropriate, partners and stakeholders have visibility into agency geospatial data management activities (e.g., collection, integration, maintenance, dissemination, and preservation)? (Select all that apply)

- Yes. There are processes in place for all agency mission areas.

7.1.a If yes or partial to Question 7.1, which external partners and stakeholders are involved in data management activities? (Select all that apply)

Clarifying text: The selection list provided was taken from the GDA, USC 43 Sec 2803(b)(C).

- Other federal agencies
- States
- Local governments
- Regional governments
- Tribal governments
- Private sector entities
- Geospatial information user identities
- Professional associations
- Scholarly associations
- Nonprofit associations
- Academia
- Licensed geospatial data acquisition professionals
- Other: International Boundary Commission and International Boundary and Water Commission boundaries are integrated.

7.1.b If yes or partial to Question 7.1, what processes are in place to ensure partners and stakeholders are involved? (Select all that apply)

Clarifying text: When answering this question think about activities such as using surveys, listening sessions, Request for Information, booths at stakeholder conferences.

- Partnership outreach activities
- Expert consultations
- Advisory committee(s)
- Working group(s) and sub-committee(s)
- Steering committees
- Councils
- Engage with trade groups
- Feedback opportunities (e.g., contact email/phone, call center)
- Federal Register Notices
- Memoranda of Understanding
- Use other public comment process
- Other: Geographic Support Program Listening Tour

7.2 Does your agency build upon existing non-federal geospatial data? (Select all that apply)

- Yes. Agency builds upon existing non-federal geospatial data to the extent possible.

7.2.a If yes or partial to Question 7.2, what ways do you build upon existing non-federal geospatial data? (Select all that apply)

- Procurement/acquisition/grant
- Research partnership
- Cooperative data collection or crowd sourcing
- Mission assignments or Interagency Agreements
- MOAs/data sharing agreements

7.3 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(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." If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

The CGWG is currently assessing geospatial partnership agreements to recommend to the CDGB for leveraging geospatial partnerships effectively. NOAA and the Census Bureau both manage partnership programs and federal agency agreements. The Census Bureau continues to integrate high-quality address, feature, and boundary data from more than 40,000 tribal, federal, state, and local government partners through partnership programs, such as the BAS, into the MAF/TIGER System (see https://www.census.gov/programs-surveys/geography/about/partnerships.html). In FY22, the Census

Bureau began developing a Partner Portal, which will enable users to receive customized and controlled access to Census Bureau geographic and statistical information unique to their government.

The U.S. Geological Survey (USGS) and Census Bureau maintain a partnership that facilitates the exchange of Census Bureau roads and boundary data for use by USGS in The National Map and the U.S. topographic map series. The Census Bureau also maintains a partnership with the United States Postal Service (USPS) to receive the USPS Delivery Sequence File, an input to the Census Bureau's MAF.

The Climate Mapping for Resilience and Adaptation (CMRA) portal is a joint White House, NOAA and Department of Interior funded project released in FY22 to help communities across the nation understand the real-time climate-related hazards in their area, analyze projected long-term exposure to those hazards, and identify federal funds to support climate resilience projects for their communities. The portal also serves as a key tool to aid in the planning and implementation of federal investments, such as the Bipartisan Infrastructure Law and Inflation Reduction Act. CMRA integrates decision-relevant information from across the U.S. government, including climate maps and data; non-climate data such as building code standards, economic justice, and social vulnerability information; and federal grant funding opportunities.

GDA Requirement	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;
Agency Self-Assessment	**Meets Expectations**

KEY to Self-Assessment	• **Meets expectations =**
	   ○ Yes to 8.1, 8.2 and 8.3
	• **Made progress toward expectations =**
	   ○ Any combination of Yes, Partial and No to Questions 8.1, 8.2 and 8.3
	• **Fails to meet expectations =**
	   ○ No to 8.1, 8.2 and 8.3

Table 8. GDA USC 43 Sec 2808(a)(8) Promote Application of Geospatial Data Assets Requirement and Self-Assessment Criteria.

USC 43 Sec 2808(a)(8)(A) make Federal geospatial information and services more useful to the public;

8.1 Does your agency leverage geospatial information to make federal geospatial information and services more useful to the public?

Clarifying Text: A number of examples of leveraging geospatial information for public use include, but are not limited to:

- ✓ Making the data accessible
- ✓ Providing data in ingestible services
- ✓ Providing maps or visualizations of geospatial data - like a map of an agency's jurisdictional regions so the public can identify their region on a website
- ✓ Provided data in an online application – like the COVID-19 case tracker
- ✓ Outreach/communications for user feedback
- ✓ Making data open, standardized, or machine readable

- Yes

USC 43 Sec 2808(a)(8)(B) enhance operations; USC 43 Sec 2808(a)(8)(C) support decision making

8.2 Does your agency leverage geospatial information to improve operations and decision-making?

- Yes. Agency broadly leverages geospatial information in operations improvements or decision-making.

USC 43 Sec 2808(a)(8)(D) enhance reporting to the public and to Congress

8.3 Does your agency leverage geospatial information to enhance reporting to the public or to Congress? (Select all that apply)

- Yes. Agency broadly leverages geospatial information to enhance public and Congressional reporting.

8.3.a If yes or partial, for which of these audiences does your agency leverage geospatial information to enhance reporting? (Select all that apply)

- Public reports (e.g., fact sheets, data briefs, Annual reports, other published agency reports).
- Congressional reports.
- Internal agency and leadership plans, reports and communications.

8.4 Optional Question: Would the agency like to provide up to 5 key examples and links that demonstrate how geospatial data assets are used, internally and externally, to make federal geospatial information and services more useful to the public; enhance operations; support decision making; and/or enhance reporting to the public and to Congress?

- Yes

Example	Link
The Census Bureau's 2022 Boundary and Annexation Survey (BAS) Viewer interactive web map application includes a Boundary and Annexation Survey participation map and a Boundary and Annexation Survey response map.	https://mtgis-portal.geo.census.gov/arcgis/apps/MapSeries/index.html?appid=71fcdd7c62064be18ea98c8127ac9ce4
The Census Poverty Status Viewer was developed by the U.S. Census Bureau to support the Commerce Department's Economic Development Administration. The application includes poverty data for the population for whom poverty status is determined from the 2015-2019 American Community Survey 5-year estimates.	https://mtgis-portal.geo.census.gov/arcgis/apps/webappviewer/index.html?id=31e10881bd1040b7b0ae685559917509
NOAA led an interagency effort with DOI to support the Biden Administration's launch of the Climate Mapping for Resilience and Adaptation (CMRA) portal, an interactive mapping website that will help federal, state, local and tribal governments as well as non-profit organizations learn about climate hazards impacting their communities and assess exposure to climate hazards in the future.	https://resilience.climate.gov/
NOAA's National Integrated Drought Information System (NIDIS) and NCEI launched the new Tribal Nation Boundary map feature in direct response to the NIDIS Tribal Drought Engagement Strategy. Users can display boundaries for the more than 300 reservations across the U.S. from the U.S. Census Bureau, overlaying reservation boundaries on any of the maps available on Drought.gov.	https://www.drought.gov/tribal

Example	Link
The NOAA Digital Coast Partnership is a prime example of the benefits of connecting the federal government with local leaders. This group of eight non-governmental membership organizations has expertise in a wide range of policy and technical issues. The Digital Coast also provides an effective platform for these groups to work together to address coastal issues. Partnerships are covered by Memorandums of Agreement, Memorandums of Understanding, and other similar agreements.	https://coast.noaa.gov/digitalcoast/about/partnership.html

Table 8.a. Example Benefits of Federal Geospatial Data Assets.

8.5 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(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;"

If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

The Census Bureau depends on partnership and collaboration to meet its agency mission and seeks to expand and create new opportunities to engage with stakeholders, while maintaining existing partnerships. Sustaining partnerships between various entities and with the Census Bureau enable the ongoing exchange of ideas, methods, tools, expertise, and lessons learned necessary to understand our stakeholders' needs and develop data products, programs, and services accordingly. Currently in development, the Census Bureau's new Partner Portal application will allow the Bureau's Geographic Support Program to engage with its partners in tribal, federal, state, and local governments.

In FY21, NOAA convened a series of Climate and Equity Roundtables across the country to gather feedback from community partners to inform how NOAA provides climate services, engages with underserved and vulnerable communities, and strengthens internal processes to respond to expressed needs. Hosted by the NOAA's Regional Collaboration Teams, these events frame discussions around impacts experienced in local communities related to a changing climate. In FY22, NOAA took specific actions based on the outcomes of these Roundtable discussions. Specific examples of how NOAA is currently working with community partners to address these issues are listed here: https://www.noaa.gov/regional-collaboration-network/noaas-climate-and-equity-roundtables.

Examples of these include:

• Heat Health in the Southeast
• Tackling Barriers to Accessing NOAA Climate and Resilience Resources in Alaska
• Coastal Flooding in Connecticut
• Flooding and Resilience in Mississippi River Communities

- Equitable Resilience in Light of a Climate Emergency in Hawai'i
- Inundation and Flooding in Louisiana
- Urban Flooding in Southeast Michigan/Detroit
- Heat Resilience in the U.S. Southwest

GDA Requirement	Protect personal privacy and maintain confidentiality in accordance with Federal policy and law
Agency Self-Assessment	Meets Expectations

KEY to Self-Assessment	• **Meets expectations =**
	    ○ Yes to Questions 9.1 and 9.2
	• **Made progress toward expectations =**
	    ○ Yes or Partial to Questions 9.1 **or** 9.2
	• **Fails to meet expectations =**
	    ○ No to Questions 9.1 **or** 9.2

Table 9. GDA USC 43 Sec 2808(a)(9) Protection of Privacy and Confidentiality Requirement and Self-Assessment Criteria.

9.1 Are the agency's Privacy Threshold Assessment or Privacy Impact Assessment (PTA/PIA) processes inclusive of your agency's geospatial data?

Clarifying Text: The Privacy Threshold Assessment/Analysis would be the mechanism that agencies use to determine if PII is, or is not, collected and whether a Privacy Impact Assessment needs to be done for an information system.

- Yes. The agency's PTA/PIA processes are inclusive of all agency data.

9.2 Are the IT systems and applications that maintain and support your agency's geospatial data covered by a current Authorization to Operate (ATO)?

- Yes. All agency geospatial data is housed in a system covered by a current ATO and is appropriately protected in accordance with applicable laws and regulations.

9.3 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(9), "protect personal privacy and maintain confidentiality in accordance with Federal policy and law." If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

The Department of Commerce complies with the Federal Information Security Modernization Act of 2014 (FISMA), FIPS 200: Minimum Security Requirements for Federal Information and Information Systems, the Government Act of 2002, and the OMB Circular A-130: Management of Federal Information Resources.

The Census Bureau released v1.1 of the Office of Information Security Risk Management Program Authority to Operate (ATO) Process guide in July 2021. The bureau follows the guidelines for initial and ongoing authorizations. A powerful new disclosure avoidance system (DAS) designed to withstand modern re-identification threats protects 2020 Census data products (other than the apportionment data; those state-level totals remain unaltered by statistical noise). More information can be found at: https://www.census.gov/programs-surveys/decennial-census/decade/2020/planning-management/process/disclosure-avoidance.html.

GDA Requirement	Participate in determining, when applicable, whether declassified data can contribute to and become a part of the National Spatial Data Infrastructure
Agency Self-Assessment	**Meets Expectations**

KEY to Self-Assessment	• **Meets expectations =**
	   ○ Yes or Not applicable to Question 10.1
	• **Fails to meet expectations =**
	   ○ No to Question 10.1

Table 10. GDA USC 43 Sec 2808(a)(10) Declassified Data Requirement and Self-Assessment Criteria.

10.1 If your agency handles declassified geospatial datasets, does it have a process to review these declassified datasets for inclusion in the NSDI?

Clarifying text: Sharing standards-based data on the Internet using standard protocols and formats makes it part of the NSDI.

- Not applicable: The agency does not handle declassified data.

10.2 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(10), "participate in determining, when applicable, whether declassified data can contribute to and become a part of the National Spatial Data Infrastructure." If the assessment is "fails to meet expectations," include the actions your agency is taking to achieve the "meets expectations" level.

N/A for both the Census Bureau and NOAA. The Department of Commerce does not have a formal process for determining whether declassified data at the Department can contribute to and become part of the National Spatial Data Infrastructure. Any classified geospatial data the Department uses in its mission activities originate from other Departments and agencies. As such, the Department is not the originating entity and therefore has no authority to declassify the original data. The Department has worked with originating agencies to declassify derivative products for specific use cases; however, in those cases the declassification and product dissemination was the responsibility of the originating agency. The Department maintains situational awareness of classified geospatial data through its involvement with the Civil Applications Committee.

GDA Requirement	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
Agency Self-Assessment	**Meets Expectations**
KEY to Self-Assessment	**Meets expectations =** - No to Question 11.1 **or** - Yes to Questions 11.1 and 11.2 and all agency appropriate responses to Question 11.3 **Made progress toward expectations =** - Yes to Question 11.1 and Partial or No to Question 11.2 and agency appropriate responses to Question 11.3 **Fails to meet expectations =** - Yes to Question 11.1 and No to Question 11.2 and *No additional assessments are done* selected for Question 11.3

Table 11. GDA USC 43 Sec 2808(a)(11) Non-Duplication of Data Requirement and Self-Assessment Criteria.

11.1 Has your agency expended funds for geospatial data collection for the reporting period?

Clarifying text: "Expended funds" may include grant distribution, agency collection, or procurement of data.

- Yes

11.2 If yes to Question 11.1, and as per OMB Circular A-11 Guidance (Section 25, Page 3), has your agency searched the GeoPlatform prior to making planned geospatial data investments to determine if an existing source for that data is available and meets mission requirements?

- Yes. Agency has searched GeoPlatform prior to all geospatial data investments.

11.3 If yes to Question 11.1, has your agency searched other sources to determine if data necessary to meet requirements already exists (either within or outside the agency) before collecting or acquiring new data? (Select all that apply)

- Market research
- Cross-agency or partner coordination
- Expert consultation
- Database search
- Agency follows a documented process or official policy

11.4 Optional Question: If yes to Question 11.1, would the agency like to provide up to 5 examples of cases where the agency did find existing data that met its needs or partnered on a joint data acquisition?

- Yes

Title	Description
USDA Farm Service Agency's National Agriculture Imagery Program (NAIP)	The Census Bureau has entered into a cost share agreement with the USDA to help fund NAIP and expand coverage to include Puerto Rico and Hawaii. This agreement also provides the Census Bureau with access to imagery necessary to support ongoing MAF/TIGER System updates. National Agriculture Imagery Program - NAIP Hub Site (https://naip-usdaonline.hub.arcgis.com/)
United States Postal Service (USPS) Delivery Sequence File (DSF)	The DSF is a nationwide address file of all USPS residential and commercial units receiving mail. It provides information about existing, new and non-viable addresses and the Census Bureau updates its Master Address File (MAF) biannually with the DSF. The DSF is a critical input to the MAF, which is used to conduct censuses and surveys.
Non-profit Survey Data	Survey data acquired by non-profits such as The Ocean Exploration Trust with its research vessel Nautilus and the Schmidt Ocean Institute's extensive work in the Pacific Islands using its vessel Falkor.
Data-sharing with Orstead	Data-sharing effort with the wind energy company Orsted, which signed an agreement with NOAA in January 2021. As discussions for the data transfer continue, we have confirmed that Orsted's data standards for its own needs (e.g., bathymetric surveys, wind/weather obs, water levels, currents, other metocean obs) exceed those of NOAA, so we will be pleased to receive the data once the logistical issues for sharing have been handled.
NOAA's Brennan Matching Fund	This program matches funds with NOAA on ocean and coastal survey and mapping partnerships to leverage NOAA and partner funds and acquire more ocean and coastal survey data to a consistent project standard. NOAA will manage survey planning, quality-assure all data and products, provide the data and products to the partners on an agreed-upon timeframe, and handle data submission to the NCEI. Data and related products from this program will be available to the public.

Table 11.a. Examples of Successful Data Acquisition Searches and/or Coordination.

11.5 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(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." If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

NOAA leads the Integrated Working Group on Ocean and Coastal Mapping (IWG-OCM) to facilitate the coordination of ocean and coastal mapping activities and avoid duplicating mapping activities across the Federal sector and with state, industry, academic and non-governmental mapping interests.

The IWG-OCM and the 3D Elevation Program (3DEP) demonstrate one way to work together on coordinated mapping requirements and acquisition plans of Federal and state agencies around the country through the U.S. Mapping Coordination site (https://www.seasketch.org/#projecthomepage/5272840f6ec5f42d210016e4/layers). This site, open to all, is a geospatial platform to share outlines of mapping priorities and collaborating partners projects.

The IWG-OCM is also conducting multiple Spatial Priorities Studies, which comprehensively gather the priorities of ocean and coastal mapping partners and those that rely on coastal and ocean mapping data. This study asks IOCM partners to define areas where they need mapping data in our oceans, coasts and Great Lakes, and briefly explain why and what they want to do with it. These studies will allow Integrated Ocean and Coastal Mapping (IOCM) partners to see where there are overlaps in requirements so that resources can be allocated efficiently. Other study goals include enabling participants to coordinate better and leverage resources where there is a shared mapping need.

GDA Requirement	To the maximum extent practicable, ensure that a person receiving Federal funds for geospatial data collection provides high-quality data
Agency Self-Assessment	Meets Expectations

KEY to Self-Assessment	• **Meets expectations =**
	  ○ No to Question 12.1 **or**
	  ○ Yes to Question 12.1 and **all** appropriate selections for Question 12.2
	• **Made progress toward expectations =**
	  ○ Yes to Question 12.1 and **some** agency appropriate selections for Question 12.2
	• **Fails to meet expectations =**
	  ○ Yes to Question 12.1 and *No official documented Quality Assurance/Quality Control (QA/QC) process is in place for acquisition of geospatial data* selected for Question 12.2

Table 12. GDA USC 43 Sec 2808(a)(12) Ensuring High-Quality Data Requirement and Self-Assessment Criteria.

12.1 Has your agency expended funds for geospatial data collection from non-federal sources during the reporting period?

Clarifying text: The requirement for "a person receiving Federal funds" has been interpreted to mean non-federal organizations or corporations who are, for example, contract or grant recipients.

- Yes

12.2 If yes to Question 12.1, what methods does your agency employ to ensure quality in geospatial data collected from non-federal sources? (Check all that apply and use the "other" textbox to briefly describe additional methods used to ensure quality for geospatial data acquired by procurement or grant process)

- Evaluate data for quality prior to any acquisition.
- Geospatial data quality standards are specified in contract documents.
- Staff data experts review and approve geospatial data deliverables.
- The agency acquires data from another federal agency that is responsible for QA/QC.

12.3 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(12), "to the maximum extent practicable, ensure that a person receiving Federal funds for geospatial data collection provides high-quality data." If the assessment is "made progress toward expectations," include the actions your agency is taking to achieve the "meets expectations" level.

Commerce ensures that the data collected by non-federal sources are high-quality. While not applicable to the Census Bureau, NOAA meets the requirements. For example, datasets that are part of the Elevation and Water - Oceans & Coast Theme adhere to strict international standards for data quality.

Whether the data is collected by NOAA or private entities contracted by or receiving grants from NOAA, the same standards and policies apply.

The Data Sharing Directive for NOAA Grants, Cooperative Agreements and Contracts (https://nosc.noaa.gov/EDMC/documents/Data_Sharing_Directive_v3.0_remediated.pdf) specifies the following requirements: "Data should be available in at least one machine-readable format, preferably a widely used or open-standard format and should be accompanied by machine-readable documentation (metadata), preferably based on widely used or international standards."

The NOAA Data and Publication Sharing Directive for Grants and Contracts (See the Optional Highlight on Page 30 and Appendix B) provides Data Management Guidance Template for NOAA Funding Programs, and text to be included in FFO Announcements and Contract Solicitations for projects that may generate environmental data (including Broad Agency Announcements). In addition, NOAA regularly meets with partners to share research initiatives and progress, and to discuss ways to further our partnerships.

GDA Requirement	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
Agency Self-Assessment	Meets Expectations

KEY to Self-Assessment	• **Meets expectations =**
	  ○ Yes to Question 13.1
	• **Fails to meet expectations =**
	  ○ No to Question 13.1

Table 13. GDA USC 43 Sec 2808(a)(13) Point of Contact Requirement and Self-Assessment Criteria.

13.1 Has your agency appointed a POC to coordinate with the lead covered agencies for collection, acquisition, maintenance, and dissemination of the NGDA data themes used by the covered agency?

Clarifying text: According to the GDA Definitions, USC 43 Sec 2801(12), NGDA data theme means "the NGDA core geospatial datasets including electronic records and coordinates relating to a topic or subject designated under USC 43 Sec 2805." Also, OMB Circular A-16 may include additional guidance on covered agency responsibilities for theme coordination.

- Yes. An agency POC has been appointed.

13.2 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2022 in addressing USC 43 Sec 2808(a)(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." If the assessment is "fails to meet expectations," include the actions your agency is taking to achieve the "meets expectations" level.

Commerce has established and maintains lead points of contact for all required GDA and FGDC requirements. The Commerce SAOGI is Tony LaVoi, NOAA CDO. The Census Bureau leads or co-leads 2 NGDA themes and participates in the activities of 3 others. NOAA leads or co-leads 4 NGDA themes and participates in the activities of 3 others. The Census Bureau and NOAA have appointed contacts to all applicable themes.

- Address Theme: Matthew Zimolzak, Census Bureau Co-Lead
- Biodiversity and Ecosystems: Nicolle Rutherford, NOAA Member
- Cadastre Theme: Laura Waggoner, Census Bureau Member
- Climate and Weather Theme: Gregory Schoor, Mark Glaudemans, NOAA Co-Leads
- Elevation Theme: Ashley Chappell, NOAA Co-Lead
- Geodetic Control Theme: Dan Roman, NOAA Lead
- Governmental Units, and Administrative and Statistical Boundaries Theme: Dierdre Bevington-Attardi, Census Bureau Lead
- Imagery Theme: Peter Reid, Census Bureau Member, Doug Graham, NOAA Member

- Land Use - Land Cover Theme: Nate Herold, NOAA Member
- Transportation Theme: David Cackowski, Census Bureau Member
- Water - Oceans and Coasts Theme: Corey Allen, Leland Snyder, NOAA Co-Leads

Optional Highlight - a Key GDA Related Achievement

This optional section provides an opportunity for the Agency to briefly highlight a key achievement in making progress towards meeting GDA requirements or advancing geospatial activities. Please note that this achievement may have already been highlighted in the Brief Summaries or the optional 2-page PDF submission in Appendix B (if provided). (Limit 2000 characters, or approximately 300 words)

In September 2022 the Administration, in partnership with NOAA and DOI, launched the new Climate Mapping for Resilience and Adaptation (CMRA) portal to help communities across the nation understand the real-time climate-related hazards in their area, analyze projected long-term exposure to those hazards, and identify federal funds to support climate resilience projects for their communities. The CMRA portal is an easily accessible and interactive geospatial website designed as a one-stop shop to equip those on the ground with the tools they need to plan and prepare and to access federal resources to build greater resilience. The CMRA portal serves as a key tool to aid in the planning and implementation of federal investments, such as the Bipartisan Infrastructure Law (BIL) and Inflation Reduction Act.

CMRA integrates decision-relevant information from across the U.S. government, including climate maps and data; non-climate data such as building code standards, economic justice, and social vulnerability information; and federal grant funding opportunities. The CMRA Assessment Tool offers information on past, present, and projected future climate conditions to support planners and managers in assessing their exposure to climate-related hazards, including drought, extreme heat, coastal and inland flooding, and wildfires. The site helps users create their own custom climate exposure assessment for specific locations and customize statistics and visual representations of the hazards in their particular area.

The CMRA portal builds on years of scientific data and investments across the federal government housed in a range of geospatial platforms, but in the past these resources have been difficult to find and understand, as they were not integrated to provide a more complete picture. CMRA is built on GIS technology that is key to integrating information to help communities understand complex problems such as climate change in the context of location-based science.

Appendix A: Survey Picklists

This appendix provides the full set of choices presented in the self-assessment survey for questions that have multiple response options, including those that are "select all that apply."

2.1 Does your agency ensure that all eligible geospatial data is managed so it can be readily shared and is it provided in open formats, as appropriate? (This will include agency open government and transparency guidelines.) (Select all that apply)

- Data is currently openly shared to the public.
- Data is currently shared on a limited basis with federal partners.
- Data is currently shared on a limited basis with non-federal users.
- No data is currently shared to other federal agencies or non-federal users. (Note: For some agencies, this may be an appropriate response).

2.2 Does your agency disseminate eligible geospatial data in a way that can be readily shared in open formats (for example, using machine readable formats or searchable metadata)?

- Yes, eligible geospatial data and metadata are shared in open formats.
- Eligible geospatial data are shared in open formats, but not all metadata is open format.
- Eligible geospatial metadata are shared in open formats, but not all data are open format.
- Some geospatial data, and its metadata, is shared in open formats.
- No geospatial data is shared, or geospatial data is only shared in proprietary formats.

2.3 Are maintenance processes in place to ensure other federal agencies and non-federal users have access to the most recent data in addition to data and metadata updates and corrections?

- Yes, agency policies exist to ensure all programs implement data maintenance processes.
- Some programs/datasets have maintenance processes in place.
- Maintenance processes are in development or are partially implemented.
- No maintenance processes are currently in place or in development.

3.1.a If yes or partial to Question 3.1, in what ways does your agency promote data integration from multiple sources? (Select all that apply and use the "other" textbox to briefly describe additional methods)

- Hosts a data sharing infrastructure where partners and/or data users can share and discover data.
- Develops a data integration toolkit or APIs to promote integration of agency data in external applications.
- Develops data integration processes to promote integration of non-agency data into applications.
- Provides data in openly standardized readable formats or as downloadable file packages.
- Develops data sharing agreements or Memoranda Of Agreement (MOA) with public and private partners for ingest or sharing of data.
- Other (Textbox provided)

6.1. Are defined data standards used in collecting, processing, and/or disseminating the data being addressed? (Select all that apply)

- Yes. Eligible geospatial datasets use FGDC endorsed data standards under OMB A-16, 2002, or more current versions of those endorsed standards.
- Yes. Eligible geospatial datasets use data standards that comply with OMB Circular A-119.
- Partial. Some eligible geospatial datasets use FGDC-endorsed data standards.
- Partial. Some eligible geospatial datasets use data standards that comply with OMB Circular A-119.
- No. Eligible agency geospatial datasets do not use FGDC-endorsed data standards or standards that comply with OMB Circular A-119.

6.2 Does your agency maintain its metadata in an FGDC-endorsed, or ISO-compliant geospatial metadata standard format? (Select all that apply)

Clarifying text: Question does not include legacy datasets that are static and no longer modified or otherwise managed. Also, see the list of endorsed FGDC-endorsed standards https://www.fgdc.gov/standards/.

- Yes. Eligible non-legacy datasets have well maintained FGDC-endorsed or current ISO-compliant geospatial metadata.
- Partial. Some eligible datasets have well maintained FGDC-endorsed or current ISO-compliant geospatial metadata.
- Partial. Some eligible datasets have FGDC-endorsed or current ISO-compliant geospatial metadata, that needs to be reviewed or refreshed.
- No. Agency datasets do not use FGDC-endorsed or current ISO-compliant geospatial metadata standards.

7.1 Are there processes in place to ensure that, when appropriate, partners and stakeholders have visibility into agency geospatial data management activities (e.g., collection, integration, maintenance, dissemination and preservation)?

- Yes. There are processes in place for all agency mission areas.
- Yes. There are processes in place, but some mission areas do not have requirements for geospatial data management partnerships.
- Partial. There are processes in place for some agency mission areas, but not others.
- No. There are no processes in place. (Skip to question 7.3)

7.1.a If yes or partial to Question 7.1, which external partners and stakeholders are involved in data management activities? (Select all that apply and use the "other" textbox to add additional partners or stakeholders)

Clarifying text: The selection list provided was taken from the GDA, USC 43 Sec 2803(b)(C).

- Other federal agencies
- States
- Local governments
- Regional governments
- Tribal governments
- Private sector entities
- Geospatial information user industries
- Professional associations
- Scholarly associations
- Nonprofit organizations
- Academia
- Licensed geospatial data acquisition professionals
- Other (Textbox provided)

7.1.b If yes or partial to Question 7.1, what processes are in place to ensure partners and stakeholders are involved? (Select all that apply and use the "other" textbox to add additional processes)

Clarifying text: When answering this question think about activities such as using surveys, listening sessions, Request for Information, booths at stakeholder conferences.

- Market research
- Partnership outreach activities
- Expert consultations
- Advisory committee(s)
- Working group(s) and sub-committee(s)
- Steering committees
- Councils
- Engage with trade groups
- Feedback opportunities (e.g., contact email/phone, call center)
- Federal Register Notices
- Memoranda of Understanding
- Use other public comment processes
- Other (Textbox provided)

7.2 Does your agency build upon existing non-federal geospatial data?

- Yes. Agency builds upon existing non-federal geospatial data to the extent possible.
- Not applicable: no existing applicable data exists.
- Partial. Agency builds upon some existing non-federal geospatial data.
- No. Agency does not build upon existing non-federal geospatial data.

7.2.a If yes or partial to Question 7.2, what ways do you build upon existing non-federal geospatial data? (Select all that apply and use the "other" textbox to add additional ways)

- Procurement/acquisition/grant
- Research partnership
- Cooperative data collection or crowd sourcing
- Mission assignments or Interagency Agreements
- MOAs/data sharing agreements
- Other (Textbox provided)

8.3 Does your agency leverage geospatial information to enhance reporting to the public or to Congress?

- Yes. Agency broadly leverages geospatial information to enhance public and Congressional reporting.
- Not applicable: Agency does not leverage geospatial information in published reports.
- Partial. Agency leverages some geospatial information to enhance either public or Congressional reporting.
- No. Agency does not leverage geospatial information to enhance either public or Congressional reporting.

8.3.a If yes or partial, for which of these audiences does your agency leverage geospatial information to enhance reporting? (Select all that apply)

- Public reports (e.g., fact sheets, data briefs, Annual reports, other published agency reports).
- Congressional reports.
- Internal agency and leadership plans, reports and communications.
- Not applicable: agency does not leverage geospatial information in published reports.

11.3 If yes to Question 11.1, has your agency searched other sources to determine if data necessary to meet requirements already exists (either within or outside the agency) before collecting or acquiring new data? (Select all that apply and use the "other" textbox to briefly describe additional sources)

- Market research
- Cross-agency or partner coordination
- Expert consultation
- Database search
- Agency follows a documented process or official policy
- No additional assessments are done
- Other (Textbox provided)

12.2 If yes to Question 12.1, what methods does your agency employ to ensure quality in geospatial data collected from non-federal sources?

(Check all that apply and use the "other" textbox to briefly describe additional methods used to ensure quality for geospatial data acquired by procurement or grant process)

- Evaluate data for quality prior to any acquisition.
- Geospatial data quality standards are specified in contract documents.
- Independent verification and validation (IV&V).
- Staff data experts review and approve geospatial data deliverables.
- Data standards are enforced through automated processes such as database controls or script tools.
- The agency acquires data from another federal agency that is responsible for QA/QC.
- No official documented QA/QC process is in place for acquisition of geospatial data.
- Other (Textbox provided)

Appendix B: Optional 2-Page Document

Commerce GDA Covered Agency Report
Executive Summary – January 13, 2023

The Department of Commerce (Commerce) performs a critical service for the Nation in overseeing and managing its geospatial data as required by the Geospatial Data Act of 2018 (GDA). Commerce serves as the lead or co-lead for six of the eighteen National Geospatial Data Asset (NGDA) Themes and fifty-five total datasets within these Themes, as well as five additional NGDA datasets that are led by other agencies. This accounts for roughly one third of the entire NGDA federal portfolio. In 2021, the Commerce Geospatial Working Group (CGWG) published the Commerce Geospatial Strategy (2021-2024) and the associated Commerce Geospatial Strategic Action Plan. In 2022, Commerce made significant progress in meeting the GDA requirements, including monthly reporting to the Commerce Chief Data Officer (CDO) and the Commerce Data Governance Board on our key Commerce Geospatial Strategic Action Plan milestones and accomplishments.

Following the Office of the Inspector General's GDA Audit in FY22, Commerce's Senior Agency Official for Geospatial Information (SAOGI), along with the Commerce Chief Data Officer (CDO) developed plans and timeframes to align metadata quality control processes with the FGDC metadata guidance where applicable. During the audit, technical challenges on GeoPlatform were found to still be causing metadata harvesting issues for Commerce, which means GeoPlatform users may be unable to find Commerce's geospatial data and determine if it meets their needs. The Commerce SAOGI met with key staff from the Department of Interior (DOI) to establish a reporting process necessary to identify any issues with the availability and organization of NGDAs on the GeoPlatform, and to understand GeoPlatform changes affecting Commerce's harvesting processes. A rigorous review of the data.gov metadata harvesting process led by the Commerce CDO will eliminate duplication and exemplify best practices to improve the accessibility of Commerce NGDA's on the GeoPlatform.

During FY22, the Commerce Geospatial Working Group (CGWG) supported the continuation of the Commerce Geospatial Standards Users' Group (CGSUG) and the Commerce Imagery Users' Group (CIUG) to raise awareness on important geospatial topics and activities pertaining to standards and imagery. The CGSUG has established a core team dedicated to metadata and standards. This team developed a library that can be used to hold metadata and standards documentation as well as participated in voluntary consensus standards development, collaborated with the Open Geospatial Consortium, and attended trainings on end user support for metadata standards and compliance.

Commerce staff lead address standards development through the International Committee for Information Technology Standards Technical Committee L1 - Geographic Information Systems (INCITS-L1) and the U.S. Technical Advisory Group to the International Organization for Standardization (ISO) Technical Committee 211 Geographic information/Geomatics (TC 211). Commerce staff also adhere to requirements and best practices from standard bodies such as the International Hydrographic Office, the World Meteorological Organization, and the International Association of Geodesy.

Commerce continues to provide leadership to the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM), helping to promote innovation, leadership, frameworks, and partnerships to enhance geospatial information management globally. Deirdre Dalpiaz Bishop, Chief of Geography Division at the Census Bureau, is the appointed head of the U.S. Delegation to the UN-GGIM and Co-Chair for the High-level Group on the Integrated Geospatial Information Framework (IGIF). During the Ninth Session of the UN-GGIM: Americas Regional Committee in November 2022, Ms. Bishop facilitated a session on the IGIF and submitted a resolution on behalf of UN-GGIM: Americas in support of the global implementation of the IGIF.

In December 2022, the Census Bureau announced final urban areas based on the 2020 Census. The Census Bureau's urban and rural classification provides an important baseline for analyzing changes in the distribution and characteristics of urban and rural populations and housing in the United States and Territories (see Urban and Rural (census.gov)). Stakeholders from federal, state, and local governments, as well as non-governmental organizations, use the Census Bureau's urban-rural classification for allocating program funds, setting program standards, and implementing aspects of their programs. The Census Bureau's urban areas support the Office of Management and Budget's delineation of metropolitan and micropolitan statistical areas.

The U.S. Census Bureau released the cloud-based Census Geocoder web application. The Census Geocoder is an address lookup tool that allows businesses, governments, and other data users the ability to match addresses to geographic locations and entities efficiently and accurately. Initially released in 2013, the FY22 redesign modernizes the Geocoder, making it more responsive by using open-source software and by hosting it in the cloud—the first web application to utilize this technology at the Census Bureau. This latest update continues to improve the geocoding experience for public use (access the Census Geocoder via https://geocoding.geo.census.gov/).

Commerce also played a lead role in supporting the Administration's new priorities, including but not limited to Executive Order 14008 "*Tackling the Climate Crisis at Home and Abroad*" and Executive Order 13985 "*Advancing Racial Equity and Support for Underserved Communities Through the Federal Government.*" The following are relevant examples of how Commerce supports the Administration's priorities for climate and equity.

In FY22, the Biden-Harris Administration, in partnership with NOAA and DOI, jointly launched the Climate Mapping for Resilience and Adaptation (CMRA) portal as part of an interagency partnership working under the U.S. Global Change Research Program (USGCRP) and with guidance from the FGDC. The CMRA portal will help communities across the nation understand the real-time climate-related hazards in their area, analyze projected long-term exposure to those hazards, and identify federal funds to support climate resilience projects for their communities. Addressing climate change and building climate resilience are among the Commerce Department's top priorities. CMRA incorporates White House goals for equity and inclusion principles into all information on climate resilience projects.

The Census Bureau and the Department of Housing and Urban Development collaborated on a problem statement for The Opportunity Project Summer 2022 Sprints – Transforming Local Addressing Systems in Puerto Rico. The vision for this sprint was to provide momentum for municipal governments to continue their efforts to fill in locatable address and street name gaps, standardize and openly share address information, and develop best practices to build an address data infrastructure that will advance equity and benefit communities.

NOAA, the Pointe-au-Chien Indian Tribe (PACIT), and Louisiana Sea Grant are partnering to launch a new pilot project that builds relationships and strengthens community resilience to natural disasters and the effects of climate change. The pilot project, "Building Relationships and Community Resilience with the Pointe-au-Chien Indian Tribe of Southeast Louisiana," will support cultural and community resilience in a part of the country where land is rapidly being lost to water. The PACIT experiences ongoing climate-related hazards such as coastal erosion, subsidence, rising water levels and saltwater intrusion in their communities, as well as acute impacts from hurricanes. Taken together, these impacts affect the Tribe's ability to continue traditional ways of life through farming, fishing, and hunting.