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FEDERAL GEOGRAPHIC DATA COMMITTEE

2021 Covered Agency Annual Report and Self-Assessment

for

U.S. Department of Agriculture

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

February 4, 2022

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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 U.S. Department of Agriculture's annual report to the FGDC covering the period from October 1, 2020 through Fiscal Year 2021 (September 30, 2021). 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 U.S. Department of Agriculture 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 U.S. Department of Agriculture 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. The U.S. Department of Agriculture submitted a 2-page document that has been included in this report as Appendix B.

[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 U.S. Department of Agriculture

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	**Made Progress Toward 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 new 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?

- Yes

If yes, please provide the URL or briefly describe how public access is being provided.

USDA's Geospatial Strategic Plan is published/available to the public on USDA OCIO web pages.

URL: https://www.usda.gov/ocio/enterprise-geospatial-strategic-plan.

The PDF is: https://www.usda.gov/sites/default/files/2021-12/Enterprise%20Geospatial%20Strategic%20Plan_Final.pdf.

This link: https://www.usda.gov/ocio/centers/egmo also gives an outline of the Geospatial mission and strategic goals. Public access is available via search on USDA OCIO enterprise web pages and via Google.

1.3 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2021 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 US Department of Agriculture (USDA) published its Enterprise Geospatial Strategic Plan (GSP) in FY21 and currently aligns w/it to advance geographic information, related geospatial data & activities in support of the National Spatial Data Infrastructure. USDA's GSP elaborates upon each of the goals w/specific objectives, including expanding use of geospatial data/access, promotes adoption of policies/standardized software, securing funding/staff for geospatial initiatives, and otherwise developing partnerships, encouraging geospatial innovation/professional competency. Below are specific Agency/Mission Area (MA) examples • APHIS developed/follows the "APHIS GIS Portal Governance" document. • ARS required data management plans as part of their in-house 5-year project plan. • FNS is working towards integrating ArcGIS Online software into E-auth to increase geospatial data protection. • NRCS established a Geospatial Advisory Council (GAC) w/1 objective to advance geospatial data integration into agency MAs; expects to develop a geospatial strategy in early 2022. • RMA in FY21 worked to align its Business Geospatial oversight (RMA Combined Mapping Team) w/Department-wide groups, incl. USDA Enterprise Geospatial Management Office (EGMO) and USDA Chief Data Officer (CDO) to develop collaborative governance for geospatial portfolio management. RMA has worked closely w/USDA Farm Production and Conservation (FPAC) Assistant CDO and USDA FPAC Info Solutions Division (ISD) to address geospatial enterprise architecture and IT requirements in specific RMA investments and in the Compliance Data Warehouse Migration & Modernization effort. Several agencies are in the initial stages of implementing consistent governance for geospatial data. Some is due to large reorganizations due to executive directives, further complicated by the COVID pandemic; despite challenges, leadership of agencies are supportive of better governance; are striving toward full GDA compliance.

USC 43 Sec 2808(a)(2) Support Data Sharing

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	**Made Progress Toward 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 - *see Appendix A for complete list of optional responses*)

- 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.

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 - *see Appendix A for complete list of optional responses*)

- Some geospatial data, and its metadata, is 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 - *see Appendix A for complete list of optional responses*)

- Some programs/datasets have maintenance processes in place.

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
Foreign Agricultural Service (FAS) Crop Explorer	FAS Crop Explorer application provides a mechanism for finding and accessing global crop condition data. https://ipad.fas.usda.gov/cropexplorer/. The primary mission Production Estimates & Crop Assessment Division (PECAD) at FAS is to produce the most objective/accurate assessment of global agricultural production outlook & conditions affecting food security in the world. https://cmr.earthdata.nasa.gov/search/concepts/C1214610177-SCIOPS
Cropland Data Layer (CDL) Dissemination FTP portal at NASS	USDA's National Agricultural Statistics Service and Agricultural Research Service's (NASS) CroplandCROS geospatial data product hosts the Cropland Data Layer (CDL). The app allows users to geolocate farms and map areas of interest, and more easily conduct area and statistical analysis of planted U.S. commodities. 13 years of national CDLs are available for direct download via https://www.nass.usda.gov/Research_and_Science/Cropland/Release/index.php
TMF Shared Services Proposal to Store and Share Geospatial Imagery Data at GeoPlatform.gov	USDA's first chance to work across Fed space to partner w/DOI and provide shared imagery services. The Technology Management Fund (TMF) proposal would help facilitate FS imagery w/in GeoPlatform, solidifying potential for an interdepartmental imagery publication platform for sharing and de-duplicating imagery in support of mapping & analysis. This initiative addresses mission critical needs, advances modernization, and establishes the potential of adding other agencies, further reducing costs.
FNS Meals for Kids sites	To slow the spread of COVID19, many schools closed. The FNS Meals for Kids application allows at-risk families and others in underserved communities to identify where children 0-18, may receive a free meal when school is not in session. Ensuring those who rely on free or reduced-price meals at school, are able to get the nutrition they need. The backend dataset of meal locations is open and updated every week. https://www.fns.usda.gov/meals4kids
FS Planned Conversion to ISO 19115-1/3 Metadata	FS is working on guidance, policy, processes, training to ensure geospatial data is properly documented to meet latest ISO metadata standards to increase shareability. They have an FS Handbook on implementation of ISO metadata, release pending publication of USDA Metadata Manual to ensure it aligns. In FY21, tested/developed a process to utilize Esri's ArcPro to create ISO 19115-1/3 compliant metadata. Have Task Order to develop How-To guide/training for users to utilize process effectively.

***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 FY2021 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.

USDA agencies are engaged in multiple areas of data sharing across the enterprise and in collaboration w/external entities. We updated DR 3465-001 Enterprise Geospatial Data Management and drafted a new Metadata Manual to be published in FY22. Examples:

• FS Teams worked w/the GeoPlatform team to harvest FS Metadata fr/data.gov, worked on data standards to ensure data meets national requirements, and is consistently able to be consolidated/shared; FS shared 551 layers publicly on its Enterprise Data Warehouse.

• NASS: 2020 Cropland Data Layer (CDL) was published Feb 2021. All CDL's, derivative products, & metadata were published/freely available on public portals. 2021 CDL will be published early Feb'22.

• ERS reviewed, updated, documented geospatial data holdings, wh/included reviewing/updating metadata where needed.

• NRCS' Web Soil Survey (WSS) is a publicly available web app allowing customers to view soils data stored in Soil Data Mart database for anywhere in the US/Island Territories. A wide range of soil property, interpretation rules (thematic maps) & tabular reports are presented. WSS allows the download of spatial & tabular soils data in SSURGO format for their AOI or for an entire soil survey area. Soil Data Access (SDA) is both a web app & series of web services that provide access to data in the Soil Data Mart database. Web app allows users to write custom SQL queries against tabular data in the Soil Data Mart database & retrieve data as text or xml files. Web services provide a series of options for sending customized queries to the Soil Data Mart & retrieving both spatial & tabular data.

• RMA reviewed Agency Authoritative data sets, verifying conforming metadata & data availability.

• FAS shares geospatial data via publicly available websites.

• FSA data is shared w/authorized partners through farmers.gov, internal web services and data exports. Some geo data is not allowed to be shared due to privacy or incomplete nature, hence partial responses.

USC 43 Sec 2808(a)(3) Promote Data Integration

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

KEY to Self-Assessment	• **Meets expectations =**
	  ○ Yes to Question 3.1
	• **Made progress toward expectations =**
	  ○ Partial to Question 3.1
	• **Fails to meet expectations =**
	  ○ 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?

- Partial. The agency has taken appropriate action to promote data integration from some sources.

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 - *see Appendix A for complete list of optional responses*)

- 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:** OCE integrates a wide variety of geodata to address key questions for the administration. OHS collects/integrates a variety of geodata from partner agencies for internal mapping products and internal web mapping applications.

3.2 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2021 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.

Agencies/Mission Areas across USDA promote widely sourced integration of geospatial data, both interdepartmentally, in conjunction w/myriad Federal agencies, academia, public, private, and professional orgs, and an enterprise Shared Services initiative is underway. Examples include:
• FS shares data w/Fed/non-Fed partners, from local forest agreements, to Enterprise Data Whse to a multitude of AGOL sites. FS shares vast amounts of data, but it is not always standard or consistent. FS is working to improve data governance processes to ensure more effective/efficient data sharing.

• FAS leverages ESRI platform, APIs, web apps to support data integration to provide market intel on global crop conditions for key crop producing countries.
• RMA continues developing beneficial partnerships, including supporting development of derived weather & climate products relevant to support Federal Crop Insurance Corporation (FCIC) in delivery, ensuring the integrity of crop insurance.
• NRCS' implementation and expansion of ESRI Portal on Prem tech for State GIS stewards to manage geospatial and provision content, allows conservation planners the ability to use geospatial data, services and features.
• RD Program Eligibility data sets are created from various US Census data sets that are either downloaded fr/US Census web site or are directly accessed via US Census web service API.
• FSA incorporates US Census data for targeted Farm Loan Programs and updates to administrative county boundaries. US Drought Monitor data is regularly used to determine program eligibility for various disaster programs.
• NASS has robust relationships with multiple Fed, state, USDA, university and private industry sources as inputs to CDL production. CroplandCROS dev guide: https://pdienterprise.azurecloudgov.us/portal/apps/sites/#/cropcros/pages/developers-guide and CropScape dev guide: https://nassgeodata.gmu.edu/CropScape/devhelp/help.html.
Some MAs cannot share data, hence partial rating.

USC 43 Sec 2808(a)(4) Ensure Records Retention Schedule for Geospatial Data

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	**Made Progress Toward 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?

- Partial. Some agency programs are included in the archiving appraisal process for data information products and other records created in geospatial data and activities.

4.2 Are geospatial data assets included on agency record schedules?

- Partial. Some 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 FY2021 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.

USDA Mission Areas, agencies, and staff offices responsible for GAD creation/maintenance must ensure official products and other of Geospatial Authoritative Data (GAD) are included on agency record schedules approved by National Archives and Records Administration (NARA) in accordance w/USDA DR 3080-001 Records Management (usda.gov). USDA is working to better implement requirements/ processes for including geospatial data in NARA record schedules. We reviewed DR 3080-001 w/all mission areas using a dedicated National Geospatial Data Management team, and determined our geospatial assets can be scheduled per NARA. However, found limited knowledge of DR 3080-001 and its applicability to Geospatial Assets. We plan to address this gap using systematic outreach/governance. We established a team, led by USDA National Ag. Library experts to lead a series of outreach events & to

develop training materials on existing training platforms (i.e., AgLearn). Below are examples from several Mission Areas about their progress:

• RMA: Agency Records Schedules were reviewed in FY2020 to ensure data products/other records created in geospatial data/activities are included on NARA approved agency record schedules.

• NCRS: FY21 records schedule follows NARA guidelines, 759(a)(4) regulations and are included in the agency schedule.

• AMS: Warehouse & Commodity Management Division is in the process of being NARA scheduled.

• ERS: Data appraisal and archiving efforts have been made, but not yet approved by NARA.

• ARS & FS are working w/Records Mgmt. teams to better document requirements and processes for including geospatial data/activities in record schedules. Updated the USDA geospatial data DR to include links to policies on records management.

• NASS: Cropland Data Layer (CDL) is not currently in the NASS NARA schedule. Last NARA schedule performed Jul 2013. A NARA staff person in on employed/currently checking on NARA status. The NARA staff position was unfilled the past few years.

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	**Made Progress Toward 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).

- Partial

5.2 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2021 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.

USDA published its Geospatial Strategic Plan (SP) in 2021. Goal 4 addresses these issues: Empower USDA geospatial community of practice in support of its mission. 4.1: Adequately fund USDA geospatial, community-based initiatives; 4.2: Strengthen the professional competency of geospatial practitioners across the USDA; 4.3: Create opportunities for geospatial staff to participate and contribute to mission activities and initiatives provide strategic guidance. The SP's Implementation Framework section offers a Process Overview of the planned activities for achieving each objective, along with target timelines and owners for each. The geospatial focused workforce must grow to meet expanding needs. Outreach continues to leadership to support workforce growth. Below are examples of implementation in progress:

• RMA has allocated resources to fulfill the responsibilities of effective geospatial data collection,

production, and stewardship through both Fed & CTR staff. RMA ensured that Agency IT support contracts managed by FPAC Information Solutions Division (ISD) contain appropriate levels of support for Agency needs.

• NRCS established a Geospatial Advisory Council (GAC) in FY21; one GAC objective is to identify current agency geospatial resources and needed resources.

• OHS allocated full-time, GIS support to fulfill responsibilities of internal data management, maintenance, GIS development, and committee engagement responsibilities, and is a regular agency attendee of committee meetings, forums, presentations, and other committee activities.

• FSA has full time GIS staff in its Deputy Administrator for Farm Programs (DAFP) Division. Training is provided to county office employees, and they have implemented the Esri ArcGIS Portal to provide updated interface for CLU maintenance.

• ARS Partnerships for Data Innovations, and APHIS GIS Steering Committee are effective at geospatial coordination and collaboration supporting effective data stewardship.

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 - *see Appendix A for complete list of optional responses*)

- 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.

6.2 Does your agency maintain its metadata in an FGDC-endorsed, or ISO-compliant geospatial metadata standard format? (Select all that apply - *see Appendix A for complete list of optional responses*)

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.

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

Clarifying Text: For the scope of the requirement, Section 758(b)(1)(A)(iv) provides for "includ[ing] download access to all open geospatial data directly or indirectly collected by covered agencies" and Section USC 43 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 FY2021 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.

The USDA Geospatial Strategic Plan lays out the strategy for advancing geospatial information, related technology, and activities. Key elements in its Implementation section include target timelines and resources responsible for enacting the goals and objectives identified in the plan. For example, "1.5: Establish minimum standards for data lifecycle management. To implement, develop processes to make relevant geo-data available through GeoPlatform, establish DM policy to identify, review, assess how geospatial data is made available through the GeoPlatform." EGMO developed the DR 3465-001 Enterprise Geospatial Data Management, and a Geospatial Metadata Departmental Manual. The latter 2 are now in the review/approval process. Below are examples across agencies:
• NASS CDL metadata is available and discoverable via data.gov. All CDL metadata is available for viewing and download at https://www.nass.usda.gov/Research_and_Science/Cropland/metadata/meta.php. Metadata is compliant with FGDC-STD-001-1998. The CDL is published on data.gov at https://catalog.data.gov/dataset/cropscape-cropland-data-layer. Currently researching how to post CDL on GeoPlatform.
• RMA has well defined standards for metadata for geospatial data, standards that aid in identifying business rules, including documenting geospatial data with the relevant metadata, and publishing metadata to the GeoPlatform for Agency authoritative data. This role is managed through the RMA

Combined Mapping Team (CMT) and oversight given by the CMT Steering Committee and the Agency Executive Sponsor.

• FPAC RMA has well defined standards for metadata for geospatial data, standards that aid in identifying business rules tied to the geospatial data, including documenting geospatial data w/relevant metadata, and publishing metadata to the GeoPlatform for Agency authoritative data. Managed through RMA Combined Mapping Team (CMT) and oversight given by the CMT Steering Committee and the Agency Executive Sponsor.

USC 43 Sec 2808(a)(7) Support Coordination and Partnerships

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	**Made progress toward expectations**

KEY to Self-Assessment	• **Meets expectations =**
	  ○ Yes to Questions 7.1 and Yes or Not applicable to Question 7.2
	• **Made progress toward expectations =**
	  ○ Any combination of Yes, Not applicable, Partial, or No to Questions 7.1 and 7.2
	• **Fails to meet expectations =**
	  ○ 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 - *see Appendix A for complete list of optional responses*)

- Yes. There are processes in place, but some mission areas do not have requirements for geospatial data management partnerships.

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 - *see Appendix A for complete list of optional responses*)

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**: RMA coordinates w/National Crop Insurance Services (NCIS) (an international not-for-profit org representing private crop insurance co's) and its Tech & Info Processing (TIP) Committee for relevant geospatial data (GD) and GD management activities.

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 - *see Appendix A for complete list of optional responses*)

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 processes
- **Other:** FNS has well established update schedules and receives notifications of their updates. NASS collects stakeholder feedback from CDL web portals and NASS Public Affairs Office.

7.2 Does your agency build upon existing non-federal geospatial data? (Select all that apply - *see Appendix A for complete list of optional responses*)

- Partial. Agency builds upon some 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 - *see Appendix A for complete list of optional responses*)

- 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 FY2021 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 USDA Geospatial Strategic Plan provides a roadmap to strengthen the value of geospatial information and technology across the enterprise, implement collaborative partnerships to create cost

efficiencies, and empower the USDA geospatial community of practice to provide effective mission support. Some MAs cannot share data, hence the made progress rating. Examples of cooperation:
• FPAC NRCS partners with USGS to collect and deploy elevation data ('Lidar') as well as NRE/Forest Service partnership with DOI/BLM and USGS to share fire-management related data. USDA leverages several data streams related to weather and climate data. OCIO has established a project working with USDA ARS to establish a single data pipeline between NOAA and USDA to streamline and optimize data sharing.
• FNS works with NGO partners, and makes datasets available to the public at large. Public tools utilize data from the Census, NOAA, AMS, NASA, CISA, DOI, CDC and others.
• FSA teams with other fed agencies to acquire NAIP and incorporates data such as SSURGO soils for use in erodibility calculations.
• NRCS partners with fed agencies in acquiring High Value Assets including NAIP imagery and LiDAR elevation data.
• FAS collaborates/leverages NASA, USGS, and NOAA resources frequently, and works w/USDA ARS, ERS, and NASS to share resources/gain insights on analytic approaches, especially related to crop conditions, soil moisture, and other remotely sensed measures of crop health. Continuing to support and expand upon these projects would be helpful.
• NASS: The CDL is used to derive market sensitive acreage estimates during the growing season and is publicly released upon completion of the growing season.
• ERS partners with USGS to validate their irrigation lands model using FSA administrative data; collaborates with NASS to develop/validate crop sequence boundaries (CSBs) using FSA administrative data and various staff analysis received from other groups within the organization.

USC 43 Sec 2808(a)(8) Promote Application of Geospatial Data Assets

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	**Made Progress Toward 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

- Partial

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?

- Partial. Agency leverages geospatial information in operations improvements or decision-making in some programs.

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 - *see Appendix A for complete list of optional responses*)

- Partial. Agency leverages some 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 - *see Appendix A for complete list of optional responses*)

- 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

Link	Description
https://www.nass.usda.gov/	NASS CDL data is the best available characterization of planted crops, made publicly available after completion of the growing season. Inclusion of industry/other geospatial data enhances identification of specialty or small area crops not readily available/identifiable in standard Fed datasets, thereby enhancing reporting & decision support for users. Publicly disseminated via CroplandCROS and CropScape portals allowing interactive visualization and queries of the geospatial data product.
https://www.ers.usda.gov/publications/pub-details/?pubid=42729	ERS Report to Congress: Access to Affordable and Nutritious Food-Measuring and Understanding Food Deserts and Their Consequences. Findings show a small percentage of consumers are constrained in their ability to access affordable nutritious food because they live far from a supermarket or large grocery store and do not have easy access to transportation.
https://www.fns.usda.gov/disaster/disaster-assistance	FNS utilized GIS before, during and after disasters to prepare communities, situational awareness and communicate FNS' response to disasters.
https://www.ams.usda.gov/sites/default/files/media/GTR10072021.pdf#page=3	The Agricultural Marketing Service (AMS) Transportation Services Division, Transportation and Marketing Program uses geospatial data to support its reports, whether regular (weekly/monthly) or ad-hoc, and whether they're directed to the public or internally.
USDA RD Rural Housing Eligibility website: https://eligibility.sc.egov.usda.gov/eligibility/welcomeAction.do	USDA RD uses geospatial data to determine eligibility requirements for various loan & grant programs, such as Rural Utilities (Broadband, Electric, Water & Waste) and Rural Housing loans. Geospatial data is integrated directly into the loan application intake and underwriting systems via Esri Enterprise web services, allowing systems to automatically capture geographic data as the borrower is applying for the loan/grant in the loan application intake systems and/or loan underwriting system.

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 FY2021 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.

USDA leverages geospatial methods to ensure services to its customers along critical areas incl. sharing data related to fire response/mgmt., pandemic response, response to plant health/animal health

emergencies (ER), to agriculture productivity, climate change, rural development, and safe trade. USDA data is used to drive billions of dollars in operational downstream applications. Consistently, geospatial apps lead the way in USDA's ability to respond to ERs, saving human lives, property, livestock, crops & wildlands. Examples include:

• FAS publishes the PSD Database, World Ag Production (WAP) circular, & supports WASDE (Supply and Demand Estimates) to inform the public/policymakers w/market intel on major crop commodities. The data updates/information are often supported by geospatial information. FAS has a program area intensely involved in data assessments/reporting. Global Market Analysis conveys analysis on crop production/trade data monthly via public Production, Supply & Distribution database & Global Agricultural Info Network (GAIN). GMA provides export sales reporting on a weekly basis. Analytics are used to generate info in these resources. Geospatial analysis is often used in Agency reporting, especially for crop production.

• NASS: CDL crop acreage estimates were derived for decision support for the June Ag Survey, Aug, Sep, Oct Production Reports, & Annual September Small Grains Summary Report. CDL was used to enhance operational reporting in Mississippi River Delta flooding assessment in Jun21, assess the impact of Aug21 Hurricane Ida, and prolonged summer extreme heat/drought event in western US. A new updated geospatial portal was released in Oct21 called CroplandCROS, developed to enhance CDL dissemination to USDA and ARS staff as well as the public.

• FSA: CLU data is provided through farmers.gov to customers; geospatial data is used to determine eligibility/suitability for conservation, disaster and farm loan programs.

Some MAs can't share data.

USC 43 Sec 2808(a)(9) Protection of Privacy and Confidentiality

GDA Requirement	Protect personal privacy and maintain confidentiality in accordance with Federal policy and law
Agency Self-Assessment	**Made Progress Toward 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.

- Partial. The agency's PTA/PIA processes are inclusive of some 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)?

- Partial. Some agency geospatial data is housed in a system covered by a current ATO and 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 FY2021 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.

In accordance with our Geospatial Strategic Plan and in compliance with the GDA, we developed DR 3465-001 Enterprise Geospatial Data Management, which states, "If the geospatial data asset cannot be shared with the public because it is subject to statutory, privacy, confidentiality pledge, security, trade secret, contractual, or other valid restrictions on release, the metadata must reflect that the asset is restricted from release." USDA's policies and governance work to ensure confidential data is safeguarded, as outlined by law. USDA requires annual training for all staff, contractors, and Agents of USDA who collect, access, or manage confidential or sensitive data, according to the Confidential Information Protection and Statistical Efficiency Act (CIPSEA). Also refer to USDA Privacy Policy, https://www.usda.gov/privacy-policy. Examples across the enterprise include:
• AMS, FAS, NCRS, ERS & RMA Agency IT systems used for geospatial data meet this requirement.
• FNS, OCE, OHS, RD do not handle/store geospatial PII data. System ATOs were put in place years ago

and are annually reviewed by RD Cyber Security. Enterprise-level IT systems align w/Federal privacy standards.

• APHIS has been provided numbers platforms at FedRAMP moderate level to host/secure data. Efforts are being made where needed to transition data out of less secure environments (such as AGOL)

• ARS Partnerships for Data Innovation (PDI) environment operates under an ATO. PDI is actively working with ARS research units across the agency to reduce the number on non-ATO environments.

• All NASS employees sign annual confidentiality certifications (CC) NASS form ADM-004 to comply with the law regarding the handling PII. The CC covers Title V, 7 and 18 of US law. All handling and processing of CDL related confidential data is performed on NASS federal IT systems. The CDL product once released, is a public good, and all dissemination portals are not bound by confidentiality or ATO restrictions.

USC 43 Sec 2808(a)(10) Declassified Data

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 FY2021 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. USDA does not handle geospatial classified data, nor does it generate or maintain classified geospatial data in support of business functions. Though some Agencies and Mission Areas (Mas) work with the classified community, the derived data that received from that community is unclassified (e.g., Forest Service (FS) for wildfire support). As such, this falls under the "not applicable" response category.

USC 43 Sec 2808(a)(11) Non-Duplication of Data

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	**Made Progress Toward 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?

- Partial. Agency has searched GeoPlatform prior to some 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 - *see Appendix A for complete list of optional responses*)

- Market research
- Cross-agency or partner coordination
- Expert consultation
- Database search
- Agency follows a documented process or official policy
- **Other:** NASS maintains an MOU w/USDA/FAS to support the USDA Satellite Imagery Archive (SIA) mission. NASS also uses the freely available Landsat 8 and Sentinel 2 a/b missions as inputs into the production process to derive the CDL product.

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
Agricultural Marketing Service's Transportation Services Division (AMS-TM-TSD) Centralized Station Master (CSM)	AMS TSD purchased Centralized Station Master (CSM) - a geographic proprietary data location file w/data about rail and motor carrier points for North America and international areas. https://public.railinc.com/resources/centralized-station-master
Alaska Mapping Executive Committee (AMEC)	AMEC coordinates modernization of critical Alaska map layers. AMEC currently promotes acquisition of several digital map layers including Imagery, Elevation, Terrestrial Hydrography, Wetlands, Coastal Shorelines and Bathymetry, and GRAV-D.

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 FY2021 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.

USDA's Geospatial Strategic Plan Goal 1, Objective 1.2 outlines developing Governance to align w/GDA and best practices. Currently, an updated Acquisition Approval Request (AAR) policy has been put in place wh/addresses GDA requirements. This modified AAR process is also identified in USDA DR 3465-001 so that acquisition of geospatial data is preceded by relevant searches and deduplication research. Agencies/MAs search GeoPlatform and alternate sources, which is vetted/collected independently from open federal, local, and non-government sources. Examples include:

• APHIS procured national level land ownership data after exhaustive search of other resources, incl. other federal entities, Esri, & vendors. APHIS is in the process of establishing a Data Sharing Agreement with FSA to share Common Land Unit data.

• ARS is composed of 137 research sites w/roughly 2,000 scientist or post-docs. In FY21, ARS invested considerable time/resources into training personnel and working w/various groups to make the data our scientists are interested in more easily accessible. This will be a continuous process moving forward.

• NASS maintains an MOU with USDA/FAS to support the mission of the USDA Satellite Imagery Archive (SIA) as stipulated by the USDA Remote Sensing Coordination Committee charter. The activities include, but not limited to, the development and management of the USDA SIA's cataloging and distribution systems as well as the facilitation of efficient imagery acquisition, processing, storage, off-loading, and delivery protocols. USDA participating agencies agree to make annual contributions of $75,000 to fund SIA activities/procurement. NASS also uses the freely available Landsat 8 and Sentinel 2 a/b missions as inputs into the production process to derive the CDL product. Funds were transferred via an Inter-Agency Agreement for FY21. USDA/FAS contracting performs all procurement functions on behalf of the USDA/SIA and handles all-sources searching of GeoPlatform.

USC 43 Sec 2808(a)(12) Ensuring High-Quality Data

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	**Made Progress Toward 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 - *see Appendix A for complete list of optional responses*)

- 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.
- **Other:** Note: 1 Agency, FAS, stated they had no official process, yet, currently under approval review, is an Acquisition Approval Request (AAR) policy stated in the Department Regulation 3464-001 for acquisition of geospatial data to the GAC & program areas.

12.3 Brief Summary (Limit 2000 characters, or approximately 300 words): Please provide a brief description of agency actions and accomplishments in FY2021 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.

At USDA, all federally funded data collection has the same requirements associated with Federal agencies. It must include metadata corresponding to ISO 19115 standards. OCIO has instructed agencies in FY21 to develop a plan to begin identifying geospatial assets as IT investments subject to AAR and to develop plans to systematically ensure GDA compliance. For example:

• The FS FIA Program collects, analyzes, and publishes tremendous amounts of data annually. A large part of consists of designing, implementing, and carrying out procedures to ensure data is unbiased and represents the larger landscape. Data is collected by Fed/State crews; funds are granted to states to perform a single intensity of annual plots. States wishing to intensify the sample contribute funds to collect data. FIA's Quality Assurance (QA) program employs a framework to promote consistency during all stages of national core FIA inventory process. FIA National Core Prefield Guide & National Core Field Guide document protocols, ensuring consistent prefield and field data collection for core data items. FIA's national field data entry program, the Mobile Integrated Data Acquisition System (MIDAS) is integrated into the overall FIA information management structure and provides consistent logic and error-checking in the field. The National Information Management System (NIMS) database and NIMS Compilation System (NIMS-CS) provide additional error checks, consistently calculate/provide access to a variety of derived variables using estimation equations described in general tech reports. Each field unit uses a system of post-collection QA checks to inspect data for anomalies. Feedback from users provides an important step in ensuring quality data. We continue to evolve and automate QA throughout our processes. Approximately 13% of the measured plots are ground verify by a separate, independent federal field crew.

USC 43 Sec 2808(a)(13) Point of Contact

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 Section 756." 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 FY2021 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.

USDA established an executive position of Geospatial Information Officer, which is the same as the Senior Agency Official for Geospatial Information in FY21. This executive leads the Enterprise Geospatial Management Office and is the lead point of contact responsible for USDA's geospatial portfolio. Throughout USDA Agencies and Mission Areas (MA), POCs and secondary contacts are appointed to coordinate collection, acquisition, maintenance, and dissemination of the NDGA data themes developed by the lead covered agency. Agency/MA examples include:
• RMA has identified individual data "Business Data Stewards" that have the responsibility 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.
• NCRS Identified data stewards for Soils, and related NGDA data themes exist, as well as additional identified data stewards for other geospatial data themes that are not considered NGDA's
• OHS has appointed a POC to coordinate with the Lead Covered Agencies for collection, acquisition, maintenance, and dissemination of the NGDA data themes used by this covered agency.

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

US Department of Agriculture (USDA) – Covered Agency Annual Report and Self-Assessment FY2021

Executive Summary

The US Department of Agriculture is composed of different agencies. The term 'agencies' in this document refers to the components of the Department. This overall document uses a composite approach that includes references to the proportion of its component agencies that characterize a given response that is representative of the Department ("Agency" in the language of the Geospatial Data Act corresponds to the US Department of Agriculture).

As part of its efforts to align its operations with GDA, OMB A-16 and NSDI guidance, USDA developed a geospatial assessment survey and distributed to its organizational units - USDA agencies and services - that currently use geospatial data, tools and applications. The survey allows USDA to produce its comprehensive annual geospatial baseline.

The following fifteen USDA agencies were represented within this assessment: Agricultural Marketing Services, Agricultural Research Service, Animal and Plant Inspection Services, Economic Research Service, Farm and Business Production Center, Farm Service Agency, Food and Safety Nutrition Service, Food and Safety Inspection Service, Foreign Agricultural Service, Forest Service, National Agricultural Statistics Service, National Resource Conservation Service, Office of the Chief Economist, Rural Development and Risk Management Agency.

During FY21, USDA published its first Enterprise Geospatial Strategic Plan to align its operations with guidance from the Geospatial Data Act, OMB Circular A-16, and the National Spatial Data Infrastructure strategy. It also established an executive office as part of the Office of the Chief Information Officer to provide department level coordination over USDA's geospatial portfolio, the Enterprise Geospatial Management Office, EGMO. USDA expects to complete staffing plans for its EGMO during FY22.

USDA worked to update its internal regulations and policies to provide relevant guidance to its organizational units. Specifically, it updated it geospatial data management regulation and it drafted a new department manual that provides guidance on ISO19115 adoption. Both instruments are expected for publication in FY22. However, USDA has already begun the process to provide outreach, training and support for the strengthened adoption of GDA guidelines using dedicated teams that include representatives from all of its mission areas.

Our FY21 report shows that for all USDA agencies that host National Geospatial Data Assets, they have worked to ensure metadata consistency and worked with FGDC to maintain metadata and dataset information current throughout the fiscal year. Additionally, for USDA agencies that manage non-public geospatial data, USDA has launched outreach and training programs to ensure consistency and standardization across the department for datasets that are not included in the NGDA category.

In terms of outreach, USDA hosted a department-wide geospatial symposium and a GIS Day in FY21. These events allowed for sharing examples of geospatial applications and highlighted USDA geospatial data products. In addition to establishing an environment to share best practices, it enabled the USDA community to focus on sharing applications that addressed climate change and resilience priorities. A similar cadence of outreach events is planned for FY22.