



**2022 Covered Agency Annual Report
and Self-Assessment**
for
Department of Agriculture

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 agency¹ 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 Agriculture’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 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 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.

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%98geospatial-data%E2%80%99%E2%80%94means-information-that-is-tied-to-a>

Self-Assessment for 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	Meets Expectations
KEY to Self-Assessment	<ul style="list-style-type: none"> • Meets expectations = <ul style="list-style-type: none"> ○ Yes to Question 1.1 and 1.2 • Made progress toward expectations = <ul style="list-style-type: none"> ○ Yes to Question 1.1 and No to Question 1.2 • Fails to meet expectations = <ul style="list-style-type: none"> ○ 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

USDA's Geospatial Strategic Plan was published in FY2021 Q1, and is available to the public via the USDA Office of the Chief Information Officer (OCIO) website 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, e.g., Google or Bing search engines.

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 USC43 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. All mission areas either align with USDA's Enterprise Geospatial Strategic Plan or they have further specifications that build on the Enterprise GSP, and USDA shows 100% compliance.

- The USDA GSP is being reviewed annually by the USDA EGMO GIO and the GCCB and will be updated at minimum every 5 years. This is also in accordance with the revised USDA Departmental Directive (DR) 3465-001 Enterprise Geospatial Data Management, currently in final review/adjudication for approval and publication by OBPA, and expected to be published by early FY23 Q2. The DR states, "The USDA Geospatial Strategic Plan will be reviewed by the USDA GIO and members of the Geospatial Change Control Board (GCCB) annually and updated thereafter as required."
- Additionally, in Q2, FY22, each agency within USDA commenced developing an Agency or Staff Office GDA Performance Action Plan to achieve GDA compliance, and will be updated annually, as warranted. Further, in accordance with the revised DR 3465-001: c. All Mission Areas, agencies, and staff offices will develop a 5-year road map for geospatial program implementation within 1 year of DR publication.

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	<ul style="list-style-type: none"> • Meets expectations = <ul style="list-style-type: none"> ○ <i>Data is currently shared</i> selections for all agency appropriate parties for Question 2.1 and Yes to Questions 2.2 and 2.3 • Made progress toward expectations = <ul style="list-style-type: none"> ○ <i>Data is currently shared</i> 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 = <ul style="list-style-type: none"> ○ 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.
- 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)

- 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)

- 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
ARS Metadata Training and Support	ARS The National Agricultural Library (NAL) is providing support for the EGMO contract to develop Department-wide training for Geospatial Metadata content and creation. NAL ISO geospatial metadata experts are chairing the USDA Geospatial Metadata Working Group and are active participants on other EGMO groups. NAL has a pilot system for converting, creating, disseminating, and maintaining ISO geospatial metadata.
FNS Resilience and Recovery Tool	Resilience and Recovery Tool allows anyone w/an internet connection to access disaster-related information, in combo w/community data, to help users plan for/respond to disasters. States, Tribes, communities, and other partners can use the Tool at any time during the disaster cycle. Additionally, as disasters can further worsen existing social and economic disparities, especially in underserved communities; this Tool can help identify and address the specific needs of these communities.
National Land Management Geospatial Data	The Forest Service’s Enterprise Data Warehouse has used a formal governance process since 2010 to approve national-scale geospatial land management data for public release (https://data.fs.usda.gov/geodata/edw/index.php). The governance process includes a thorough metadata review, approval by the national lead for the dataset, and approval by the Enterprise Data Warehouse’s Content Governance Board. The Clearinghouse offers >440 datasets and map services.
NASS FTP CDL dissemination portal / CroplandCROS CDL dissemination portal	14 years of national Cropland Data Layers (CDLs) are available for direct download via https://www.nass.usda.gov/Research_and_Science/Cropland/Release/index.php and NASS collaborated with USDA Agricultural Research Service (ARS) to publish CroplandCROS @ https://croplandcros.scinet.usda.gov/
Forest Service	Research data have been formally published by the Forest Service Research Data Archive (https://www.fs.usda.gov/rds/archive) since 2010 on behalf of researchers funded by the FS, the Joint Fire Science Program, and APHIS’ National Wildlife Research Ctr. Publications are designed to be accessible to other subject matter scientists, non-subject matter scientists, and the public. This is accomplished by thorough review of the metadata, augmented by publishing with non-proprietary data formats.

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.

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 FY23 after publication delays in FY22. Examples:

- FPAC-BC processed/made available imagery for 33 states, this data was then shared to federal agencies and non-federal users through a variety of methods. Our cost share partners, which are made-up of federal and state governments, were granted access to the data before it was delivered to the agency through an early access web service. Once the data was fully collected hard copies of the data were made available to our cost share partners. Once data was cleared for public dissemination a public access web service was created. Links to access the published web service can be found in a variety of locations incl. GEO's publicly facing website. The data is also made available through the data gateway to the public. Additionally, GEO operates a customer service office. This office makes all current and past GEO imagery available for federal and non-federal users through digital delivery or prints. This Office delivers data to both our large data procurers such as Google and Esri as well as local state county offices and private farmers.
- Over 150 publicly available National Forest System datasets were updated in FY22; in addition, 7 new national datasets were approved for release to the public. FS GMO created a contract for three projects to improve metadata; the projects will run primarily in FY23. Forest Service continues to make hardcopy Visitor Map Products available through the USGS Store (<https://store.usgs.gov/fsmaps>), and in FY2022 added digital versions.
- The following site (among several) is used to provide access the Approved Insurance Providers for using geospatial data in support of crop insurance: RMA AIP Hosted Server (need OP or AIP username/password to connect).

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	<ul style="list-style-type: none"> • Meets expectations = <ul style="list-style-type: none"> ○ Yes to Question 3.1 • Made progress toward expectations = <ul style="list-style-type: none"> ○ Partial to Question 3.1 • Fails to meet expectations = <ul style="list-style-type: none"> ○ 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.
- 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 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.

The largest Mission Areas in USDA which are responsible for most geospatial data products promote integration of geospatial data, both interdepartmentally, in conjunction with Federal agencies, academia, public, private, and professional organizations. An Enterprise level Shared Imagery Services was launched in FY22 and will be deployed in FY23. Examples include:

- ARS's Partnerships for Data Innovations (PDI) doubled the number of government agencies, tribal agencies, institutes of higher education, and private sector partners with which it collaborates, bringing the total to 150. These collaborations serve to standardize geospatial data collection, integration, and

management, and to allow for data dissemination to a broad audience. Critically, these efforts promote the integration of geospatial data for more widespread use in scientific research across the agency.

- ARS's National Agricultural Library (NAL) collaborated with the University of Florida (UF) on developing workflows to annotate publicly available datasets by applying common vocabulary used in the crop modeling community to increase their interoperability and re-use for models and quantitative analyses.
- FS continues to make some of the data it collects available to others for integration via downloadable files/APIs. FS also continues its long-standing practice of obtaining data useful to its mission from others (other federal agencies, state governments, nonprofit sector, and private sector). For example, FS both uses USGS hydrology data and contributes updates to USGS for streams on the lands FS manages. FS has a memorandum of agreement with USGS to provide roads, trails, and other recreation data for integration into the USGS National Map (<https://www.usgs.gov/programs/national-geospatial-program/national-map>).
- FAS Leveraging ESRI platform, APIs and web-based apps supports efforts in data integration to provide market intelligence on global crop conditions for key crop producing countries.

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	<ul style="list-style-type: none"> • Meets expectations = <ul style="list-style-type: none"> ○ Yes to Questions 4.1 and 4.2 • Made progress toward expectations = <ul style="list-style-type: none"> ○ Yes or Partial to Questions 4.1 and 4.2 or ○ No to either 4.1 or 4.2 • Fails to meet expectations = <ul style="list-style-type: none"> ○ 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 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.

USDA Mission Areas, agencies, and staff offices responsible for NGDA creation/maintenance ensure that all published NDGAs are included on agency record schedules approved by National Archives and Records Administration (NARA). In FY22, all NGDA products at USDA have associated, NARA compliant record schedules. Below are examples from several Mission Areas about their progress:

- FPAC has a dedicated and assigned records manager that supports only geospatial data assets and manages the accession to NARA. There is a NARA approved plan in place.
- NARA records on NASS Surveys n1-355-86-001_sf115 & USDA World Ag Outlook Board n1-355-91-001_sf115. Working with USDA/OCIO to include CDL entry into NARA.

- NCRS submitted a new NARA record application to the NCRS Record Management Liaison for the FGDC Soil Theme NGDAs (SSURGO, STATSGO2, MLRA, SCD).
- OHS data information products and other applicable records created in geo data are included in approved National Archives and Records Administration (NARA) schedules. When necessary, records management specific questions/concerns are raised with the OHS Records Management Custodian.
- RMA Agency Records Schedules were reviewed in FY2020 to ensure that data information products and other records created in geo data and activities are included on agency record schedules that have been approved by NARA.
- ARS does not currently have a records disposition schedule specifically for geospatial data. Consequently, geospatial data fall under “research data not covered elsewhere” in the schedule, which means they are retained indefinitely. ARS is working on developing a records schedule for geospatial data and expects to have an updated records schedule submitted to the National Archives and Records Administration in the first half of FY23. ARS also anticipates the availability of new, Department-level GDA training resources in FY23 which will help ensure ARS employees follow GDA requirements for geospatial data management.

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	<ul style="list-style-type: none"> • Meets expectations = <ul style="list-style-type: none"> ○ Yes to Question 5.1 • Made progress toward expectations = <ul style="list-style-type: none"> ○ Partial to Question 5.1 • Fails to meet expectations = <ul style="list-style-type: none"> ○ 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 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.

In FY22, USDA Office of the Inspector General reported recommendations and findings documenting specific gaps related to alignment with the Geospatial Data Act. USDA advanced a Geospatial Center of Excellence staffed with six new members to address GDA obligations for FY23. The Geospatial COE will begin transitioning to permanent staffing in FY24.

- ARS’s efforts to meet these expectations were in 3 main areas: training, infrastructure, and collaborations. First, ARS held a variety of training activities in FY22 that dealt with the collection, production, and stewardship of geospatial data. These trainings included: a Geospatial Carpentries workshop; a multi-day workshop providing instruction on geospatial data acquisition, management, and analysis on SCINet’s scientific computing platforms; and a series of workshops focused on best practices

for using UASs for scientific research, including collection and analysis of UAS-derived data. Infrastructure progress in FY22 included an initial release of the SCINet Geospatial Common Data Library, which facilitates geospatial data reuse and stewardship on SCINet's scientific computing platforms, and ongoing work by ARS's Partnerships for Data Innovations (PDI) to expand capacity for ingesting, integrating, and serving geospatial data. PDI also doubled its number of collaborating USDA agency, university, and other partners in FY22, bringing the total to 150, with the goal of further improving the standardization of ARS geospatial data collection and sharing.

- FS has a strong geospatial program to diligently to collect, produce, and steward its substantial geospatial data holdings. The FS GMO increased its staffing in FY22. FS created a Mobile Geospatial Working Group to support data collection, management, and use of geospatial data. FS hosts an NGDA Theme Lead and managers for a number of NGDA datasets.
- FPAC-BC has full time staff dedicated to program mgmt, quality assurance, dissemination, storage, archiving.

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	<ul style="list-style-type: none"> • Meets expectations = <ul style="list-style-type: none"> ○ Yes to Questions 6.1, 6.2 and 6.3 • Made progress toward expectations = <ul style="list-style-type: none"> ○ Any other combination of Yes, No, and Partial to Questions 6.1, 6.2, and 6.3 • Fails to meet expectations = <ul style="list-style-type: none"> ○ 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.
- 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)

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, 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.

In FY22, all USDA NDGAs were associated with metadata which was published to GeoPlatform.gov. 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 Department Regulation 3465-001 Enterprise Geospatial Data Management, and a Geospatial Metadata Departmental Manual. The DR Updates and DM are expected for publication in FY23. Below are examples across agencies:

- ARS’s Ag Data Commons (ADC) catalogs ARS-funded research datasets and publishes metadata for these datasets to the USDA Enterprise Data Inventory (EDI). Dataset metadata from EDI is, in turn, ingested by the data.gov catalog. Dataset metadata generated by ADC include geospatial information to support harvesting from data.gov into GeoPlatform. In FY22, changes were made to ADC’s metadata output to improve compliance with the syntax required by data.gov for GeoPlatform harvesting. Metadata for 786 ARS geospatial datasets are currently listed on the USDA EDI. Nearly half (328) of these entries were added or updated in FY22. However, not all of ADC’s geo datasets appear in GeoPlatform at this time, and in FY23 we will continue to test and improve this metadata publishing pipeline, including ensuring compliance with geospatial metadata standards.
- FAS includes metadata for publicly available geo data.
- NRCS: All NGDAs were updated on Data.gov and GeoPlatform during FY22.
- RD: FDGC Metadata xml is automatically generated for all of the data stored in the RD Enterprise Oracle GeoDatabase.

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	<ul style="list-style-type: none"> • Meets expectations = <ul style="list-style-type: none"> ○ Yes to Questions 7.1 and Yes or Not applicable to Question 7.2 • Made progress toward expectations = <ul style="list-style-type: none"> ○ Any combination of Yes, Not applicable, Partial, or No to Questions 7.1 and 7.2 • Fails to meet expectations = <ul style="list-style-type: none"> ○ 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, 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)

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
- 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)

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
- Engage with trade groups
- Feedback opportunities (e.g., contact email/phone, call center)
- Federal Register Notices
- Memoranda of Understanding
- 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)

- 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)

- 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.

Most geospatial initiatives at USDA’s mission areas with large geospatial asset investments are delivered in coordination with tribal, state, academic partners, and Federal agencies. 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. Whereas some Mission Areas cannot share internal data, there continues to be progress towards improved inventories

and improvements to data lifecycles that include roadmaps to expanded data sharing. Examples of cooperation:

- ARS's Partnerships for Data Innovations (PDI) doubled the # of gov agencies, tribal agencies, institutes of higher education, and private sector partners w/which it collaborates, bringing the total to 150. These collaborations serve to standardize geospatial data collection, integration, and management, and allow for data dissemination to a broad audience. PDI is collaborating w/multiple Tribal entities to create the new Tribal Soils Tool, which will allow Tribal producers to access spatially explicit soil information for improved water management during drought conditions.
- ERS coordinates and works in partnership with USGS to validate their irrigation lands model using FSA administrative data; working in collaboration with NASS to develop the crop sequence boundaries - validating CSBs using FSA admin data.
- FAS collaborates w/ or leverages resources of NASA, USGS, and NOAA frequently, and w/USDA ARS, ERS, and NASS to either share resources or gain insights on analytic approaches, especially related to crop conditions, soil moisture, and other remotely sensed measures of crop health.
- FNS collaborates with NGO partners and makes datasets available to the public at large. Our public tools utilize data from the Census, NOAA, AMS, NASA, CISA, DOI, CDC and others.

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	<ul style="list-style-type: none"> • Meets expectations = <ul style="list-style-type: none"> ○ Yes to 8.1, 8.2 and 8.3 • Made progress toward expectations = <ul style="list-style-type: none"> ○ Any combination of Yes, Partial and No to Questions 8.1, 8.2 and 8.3 • Fails to meet expectations = <ul style="list-style-type: none"> ○ 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)

- 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)

- 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
For active fire and post-fire activities, elevation data (preferably LiDAR-based) and high resolution imagery are key base data sets on wildfire incident command teams. Near real time infrared imagery is used to track the progress of wildfires and Landsat imagery is used to assess burn severity after the fire is extinguished. All of these geospatial datasets are critical to good decision-making at the incident where lives and property are at stake.	https://www.fs.usda.gov/rmrs/publications/lidar-based-analysis-effects-slope-vegetation-density-and-ground-surface-roughness
NASS operates CropLand Data Layer (CDL) - monthly updated remote sensing crop acreage estimates for Ag Statistics Board - supplemental for decision support to Board process; not publicly releasable. Publicly released CDL data is best avail characterization of planted crops; avail after completion of growing season. Inclusion of industry/other geo data enhances idents both ag/non-ag areas in standard Fed datasets, enhancing reporting/decision support for users.	https://www.nass.usda.gov
OCE uses geospatial data from numerous federal agencies for weather and crop impact assessment that get incorporated into the World Ag Supply and Demand Estimates reports.	https://www.usda.gov/oce/commodity/wasde

Example	Link
FNS utilized GIS before, during and after disasters to prepare communities, situational awareness and communicate FNS' response to disasters.	https://www.fns.usda.gov/disaster/disaster-assistance
NASA Space Report to the President - archive; USDA Budget Explanatory Notes - archive; Technology Transfer Annual Report - archive	Space Reporting: https://history.nasa.gov/presrep.html ; Congressional Justifications: https://www.usda.gov/obpa/congressional-justifications ; Tech Transfer: https://www.ars.usda.gov/ott/technology-transfer-annual-report/

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.

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. Many USDA data products have tens of thousands of users throughout the year with significant private sector applications. Examples include:

- FPAC-BC successfully disseminated imagery data across the federal gov to cost share partners, other fed agencies, private/public entities across the U.S. This data was used in a variety of apps for analytics/visualization purposes. Wide dissemination/use of this data, provides a base map component in applications such as Google Maps and ESRI to providing decision making tools to counties and FPAC agencies, wh/equates to vast potential use/impacts of collected imagery data.
- At FSA, CLU data provided through farmers.gov to customers, geo data is used to determine eligibility/suitability for conservation, disaster, & farm loan programs.
- NRCS provides access to services associated w/certain data themes for consumption by the public including jurisdictional maps & natural resource based geospatial data including access to Web Soil Survey for public consumption of soils data.

- OHS worked to modernize its GIS delivery systems to better leverage the platforms made avail via USDAXEsri ELA App upgrades shortened ER reporting time, increased availability, and access to internal geo data records, and improved reliability of internal intel and systems.
- RMA uses geo data for double cropping programs support, hurricane awareness, wildfires, ongoing crop boundaries, and Census info for supporting crop insurance.

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	Meets Expectations
KEY to Self-Assessment	<ul style="list-style-type: none"> • Meets expectations = <ul style="list-style-type: none"> ○ Yes to Questions 9.1 and 9.2 • Made progress toward expectations = <ul style="list-style-type: none"> ○ Yes or Partial to Questions 9.1 or 9.2 • Fails to meet expectations = <ul style="list-style-type: none"> ○ 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.

In accordance with our Geospatial Strategic Plan and in compliance with the GDA, we developed DR 3465-001 Enterprise Geospatial Data Management. Additionally, we have worked to implement personal privacy policies related to Unmanned Aerial Systems (UAS) Data capture and detailed in USDA DR 3465-002. In FY22, we established a new UAS team to strengthen governance and review cybersecurity requirements related to UAS equipment and geospatial software use for assets produced by foreign sources known to compromise data privacy. In FY23, we will provide additional training on cybersecurity for the expanding area of UAS driven geospatial data capture and provide guidance to align USDA policies with restrictions detailed in the National Defense Authorization Act as relates to UAS and geospatial data capture.

- ERS, FAS, FNS, RMA, and RD do not have PII in geo data, and coordinate w/Security to ensure privacy assessments are current.
- FPAC-BC operates and abides by all federal and departmental IT regulations including conducting PIA's and maintaining and ATO.
- At NRE-FS, PTA/PIA processes are a standard component of establishing systems. Likewise, for ensuring that systems are supported by an up-to-date ATO.
- FSA restricts CLU distro and other PII to agencies with an MOU following Sec. 1619 of the 2008 Farm Bill. PII is only stored in systems requiring two-factor authentication.
- All NASS employees sign annual confidentiality certifications to comply with the law regarding the handling of PII data. NASS Confidential Information Protection and Statistical Efficiency Act of 2018 (CIPSEA), Title III of Pub. L. No. 115-435, codified in 44 U.S.C. Ch. 35. All handling/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	<ul style="list-style-type: none"> • Meets expectations = <ul style="list-style-type: none"> ○ Yes or Not applicable to Question 10.1 • Fails to meet expectations = <ul style="list-style-type: none"> ○ 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.

This is not applicable for all USDA agencies, as none of our agencies are submitting previously classified or newly declassified data for inclusion in the NSDI. 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	<ul style="list-style-type: none"> • Meets expectations = <ul style="list-style-type: none"> ○ 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 = <ul style="list-style-type: none"> ○ 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 = <ul style="list-style-type: none"> ○ Yes to Question 11.1 and No to Question 11.2 and <i>No additional assessments are done</i> 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)

- 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
FAS Work with NRO/NGA to Access Commercial Imagery for Ukraine Field Activity	FAS accessed Global Enhanced GEOINT Delivery program by NRO/NGA during war in Ukraine to acquire satellite images of high spatial resolution at no cost. The war disrupted ag activities. USDA had to assume an amount of “not planted” or “not harvested” due to the disruption. Sat imagery identified locations where field activity was or near normal. Documented field activity was used to support crop production analysis in support of economic analysis for USDA’s World Ag Supply & Demand Estimates.
Global Enhanced GEOINT Delivery (G-EGD) Platform	Researchers at ARS’s NW Watershed Research Ctr made extensive use of Global Enhanced GEOINT Delivery (G-EGD) platform to obtain imagery owned by the Nat’l Geospatial Intel Agency (NGA) to support rangeland remote sensing research in the western US & CGIAR-SPIA funded research in east Africa. Data were available free of charge to Fed employees & with NGA case-by-case approval, could be shared with non-Fed collaborating researchers. https://www.maxar.com/products/global-enhanced-GEOINT-delivery
Hydrography and Elevation Data	Forest Service has used stream data from USGS for years, and reciprocally provided local stream data to USGS. Elevation data are strongly tied to hydrography. USGS leads the 3D Elevation Program; FS is an active partner and beneficiary of this program.
Lidar Data Acquisition in California for the North, Beckwourth and Dixie Fires	In FY22, the Forest Service obligated more than \$2 million dollars to an agreement with the US Geological Survey to collect lidar data over nearly 3 million acres of NFS lands in California that were affected by the North, Beckwourth, and Dixie Fires. State agencies and universities in California are also partners in this effort. Furthermore, the partnership agreed that NAIP imagery would meet their imagery needs.
FAS and United Nations Satellite Center (UNOSAT) Data for Flooding Analysis.	FAS acquired flooding analysis products from United Nations Satellite Ctr, wh/showed area inundated water during devastating flooding in Pakistan starting in August 2022. Products were analyzed in conjunction with gov reports/other satellite products to estimate # of crops damaged by flooding. Also used to support crop production analysis in support of econ analysis for USDA’s World Ag Supply and Demand Estimates. FAS published flooding analysis products for a variety of countries.

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.

USDA's Geospatial Strategic Plan Goal 1, Objective 1.2 outlines developing Governance to align w/GDA and best practices. An updated Acquisition Approval Request (AAR) policy has been put in place to ensure alignment with GDA requirements. Agencies/MAs search GeoPlatform and alternate sources, which is vetted/collected independently from open federal, local, and non-government sources. Examples include:

- ARS's SCINet Office held multiple trainings in FY22 to support use of open geo data and open-source geospatial SW for ARS research, including on ARS's HPC enviros. Trainings were part of an ongoing effort to help ARS researchers use geospatial data more efficiently, which includes reuse of extant geospatial data resources. This training initiative will continue in FY23. The SCINet Office also developed and launched the Geospatial Common Data Library (GeoCDL) in FY22 (currently in beta). The GeoCDL is a software stack and API (application programming interface) hosted on SCINet's HPC platform that provides easy discovery and reuse of open geospatial data for HPC geospatial research workflows. The GeoCDL therefore supports the use of open, external geospatial datasets as well as the efficient use of ARS's computing and data storage resources. Finally, we anticipate new guidance in FY23 from the Federal Geographic Data Committee (FGDC) or a revised OBM A-16 that will clarify the scope of "search all sources", which will inform Departmental and Agency implementation.
- NASS funds USDA/FAS Satellite Imagery Archive (SIA) for \$75,000 annually per USDA Remote Sensing Coord Committee charter to fund SIA activities/procurement. Activities include development/mgmt of USDA SIA's cataloging and distro systems and facilitation of efficient imagery acquisition, processing, storage, off-loading, and delivery protocols. SIA funds were transferred via an IAAs for FY22. USDA/FAS contracting performs all procurement functions for 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	<ul style="list-style-type: none"> • Meets expectations = <ul style="list-style-type: none"> ○ No to Question 12.1 or ○ Yes to Question 12.1 and all appropriate selections for Question 12.2 • Made progress toward expectations = <ul style="list-style-type: none"> ○ Yes to Question 12.1 and some agency appropriate selections for Question 12.2 • Fails to meet expectations = <ul style="list-style-type: none"> ○ Yes to Question 12.1 and <i>No official documented Quality Assurance/Quality Control (QA/QC) process is in place for acquisition of geospatial data</i> 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.
- 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: One 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 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.

At USDA, all federally funded data collection has the same requirements associated with data collection done directly by USDA. It must include metadata aligned with ISO 19115 standards. OCIO instructed agencies in FY21 and continuing in FY22 to develop a plan to identify geospatial assets as subject to AAR and to develop plans to systematically ensure GDA compliance. For example:

- OHS contracted Everbridge, a GSA Schedule vendor, to provide a risk monitoring GIS solution which simultaneously monitors thousands of trustworthy data sources worldwide. Their products are comprehensively audited by independent assessment organizations annually to ensure the highest data standards.
- NRCS Interagency and cooperative agreements are written with data standards included in the agreement to achieve procurement of high-quality geospatial data. QA/QC procedures are in place to ensure geospatial products meet the data standards stated in the agreements.
- FPAC-BC staff work to ensure that all data meets all governmental standards and is properly stored and disseminated. Agency staff works to find federal and state government funding partners. Proof could include: the annual NAIP inspection reports, NAIP inspection process document, the NAIP contract (PINE BPA) data requirements, AGOL NAIP reporting page (anyone, including federal partners can report errors or questions), accuracy reported by the vendors, partnership agreements with funding partners (refers to the PINE BPA requirements, all of which are accepted by the partners), review and comments from FSA state and county personnel (AGOL report and/or direct emails to NAIP manager, presentations to NDOP and other organizations, 20 years of participation by NDOP (technical and administrative) including data requirements and processes.
- RMA Coop Agreement has lingua/protocols to ensure geo data provided is high-quality, to include requirements of production of documentation, automated processes, and QA/QC tools.

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	<ul style="list-style-type: none"> • Meets expectations = <ul style="list-style-type: none"> ○ Yes to Question 13.1 • Fails to meet expectations = <ul style="list-style-type: none"> ○ 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.

USDA established an executive position of Geospatial Information Officer, which is the same as the Senior Agency Official for Geospatial Information since 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, POCs and secondary contacts are appointed to coordinate collection, acquisition, maintenance, and dissemination of the NDGA data themes developed by the lead covered agency. Examples include:

- FPAC has appointed a lead and works in partnership w/members of the data procurement, ingestion, dissemination, and other responsible proportions of the data throughout its life cycle to ensure for proper accountability. This lead regularly engages w/other data leads win USDA and around the federal government to ensure adherence to all rules/regulations.
- FS has 1 NGDA Theme Lead (Land Use/Land Cover). The FS GIO is the lead Geo POC, with specific responsibilities being handled by various folks in the FS GMO. The GDA POC is the FS National GIS Data Program Manager. FS has 5 dataset managers covering 8 NGDA datasets spread a cross three NGDA Themes -- 6 in Land Use and Land Cover, 1 in Cadastre, and 1 in Biodiversity/Ecosystems.

- FSA/DAFP/Program Delivery Division provides 2 representatives from NASS to EGMO's NGDMT and GCCB working groups.
- NRCS Identified data stewards for the Soils and related NGDA data themes exist as well as additional identified data stewards for other geospatial data themes that are not considered NGDAs.
- RMA has identified individual "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.

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)

USDA Key Agency Highlights:

- A key GDA-related achievement for ARS in FY22 was its progress in implementing a fully automated data-publishing pipeline that will, when fully functional, make it easy for ARS researchers to follow best practices and GDA requirements when publishing geospatial datasets. This pipeline begins w/the National Agricultural Library's (NAL) Ag Data Commons (ADC), wh/catalogs ARS-funded research datasets and provides a publicly searchable interface to ARS data, including geospatial data. NAL automatically publishes metadata for these datasets to the USDA Enterprise Data Inventory (EDI). Dataset metadata from EDI is, in turn, ingested by the data.gov catalog. The dataset metadata generated by ADC include geospatial info to support harvesting from data.gov directly into GeoPlatform. In FY22, changes were made to ADC's metadata output to improve compliance with the syntax required by data.gov for GeoPlatform harvesting. Because of this pipeline, metadata for 786 ARS geospatial datasets are currently listed on the USDA EDI.
- FAS cooperated with OCE in promoting integration of geospatial data in evaluating impacts on production, storage, and exports of grain due to the conflict in Ukraine.
- FPAC has begun an initiative to relocate all public domain to the cloud for availability to all. Additionally, FPAC has initiated a partnership w/FS, USGS and several other agencies to make all data immediately available as soon as feasible. This will result in reducing duplication of data and save considerable costs in duplication across multiple agencies.
- APHIS Moved from an Esri-managed enterprise geospatial portal to a mission area hosted enviro, w/new abilities to integrate w/other agencies and NGOs, and to streamline the access process for internal/public stakeholders through secure methods. Improvements directly support the GDA, especially responsibility #3 – Promote Data Integration, and #8 – Promote Application of Geospatial Data Assets.

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

U.S. Department of Agriculture (USDA) Covered Agency Annual Report and Self-Assessment FY2022

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. We used agencies that use Geographic Information Systems software as an indicator of the presence of geospatial data. Units that do not use GIS may also house geospatial data given its ubiquity; these will be surveyed as we establish consistency over the first group and complete separate discovery processes to fully explore geospatial data inventories at the agencies.

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 completed staffing plans for its EGMO during FY22 and is formally presenting its staffing plans as part of FY23 budgeting cycles.

USDA worked to update its internal regulations and policies to provide relevant guidance to its organizational units. Specifically, it updated its geospatial data management regulation and it drafted a new department manual that provides guidance on ISO19115 adoption. Both instruments are expected for publication in FY23 due to unexpected delays in FY22. Drafts of these documents were shared with the agencies in FY22 and socialized through several engagement sessions.

Our FY22 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. USDA OIG audits found critical gaps in USDA’s alignment with the Geospatial Data Act and provided recommendations aimed at - among others - strengthening

management oversight, establish a minimum-staffing levels, and ensure alignment with the GDA with actions executed in FY23.

In terms of outreach, USDA has continued to host department-wide geospatial symposium and GIS Day in FY22. 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 FY23.