



**2023 Lead Covered Agency
NGDA Theme Annual Performance Report
and Self-Assessment**
for
Land Use – Land Cover Theme

**Geospatial Data Act of 2018
Section USC 43 Sec 2805(b)(3) Requirements**

January 19, 2024



Table of Contents

Table of Contents.....	i
Introduction	1
Executive Summary.....	1
Official Theme Related Information	2
NGDA Theme Points of Contact.....	2
NGDA Theme Datasets.....	3
Meeting General Responsibilities – USC 43 Sec 2805(b)(2).....	4
Managing Theme-Related Content on GeoPlatform.....	4
Land Use – Land Cover Theme Progress Toward Meeting Requirements.....	5
Background	5
A. Geospatial Data Standards	5
B. Nationwide Population of the Data Theme	8
C. Establish Goals That Support the NSDI Strategic Plan	9
D. Addressing User Needs.....	10
FGDC Portfolio-Level Progress Toward Meeting GDA NGDA Data Theme Requirements	11
Background	11
A. Geospatial Data Standards	11
B. Nationwide Population of NGDA Datasets	11
C. Establish Goals That Support the NSDI Strategic Plan	12
D. Addressing User Needs.....	12
Appendix A: Survey Picklist.....	13
Appendix B: Brief Summary	14
Endnotes	17

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](#).¹

The GDA Section 2805(b)(3)(E)(I) requires annual performance reports to be submitted to the Federal Geographic Data Committee (FGDC) that document “the activities relating to and implementation of the National Geospatial Data Asset [NGDA] data theme, including progress in achieving the requirements under subparagraphs (A), (B), (C), and (D)” of Section 2805(b)(3).

This Lead Covered Agency NGDA Theme Annual Performance Report (LCA NGDA Theme Report) covers the Fiscal Year 2023 (FY2023), October 1, 2022 through September 30, 2023. The report provides an update on progress made at the NGDA Portfolio and FGDC agency level in support of meeting GDA requirements. This is the fourth annual report which is based on a template and survey to facilitate consistency across the FGDC NGDA Themes. As per the GDA, a summary and evaluation of the progress to achieve the requirements will be generated by FGDC and will be provided to the National Geospatial Advisory Committee (NGAC) for comment. The FGDC summary is required to include a rating for each responsibility of "meets expectations," "made progress toward expectations," or "fails to meet expectations." These ratings are included in this report and are used to generate part of the annual FGDC Summary Report. The summary report along with NGAC comments are included in the biennial FGDC Report to Congress. This and other required reports and information are available online via the [FGDC GDA pages](#).²

The FY2023 LCA NGDA Theme annual report continues to use the GDA definition for NGDA data theme as the foundation for reporting compliance *for the data within the theme*. From the GDA definitions, NGDA data theme “means the NGDA core geospatial datasets (including electronic records and coordinates) relating to a topic or subject designated under Section 2805.”

Executive Summary

This fourth annual FGDC NGDA Theme report provides insights into cross-cutting FGDC portfolio-level activities and theme-specific agency-level activities that will document progress in meeting GDA requirements.

At the theme level, this report provides updates to summaries and information for ongoing processes, procedures, and actions within agencies that manage NGDA datasets, that were provided in previous annual reports.

At the portfolio level, this report highlights continued efforts across the FGDC agencies and the NGDA themes to evaluate the requirements of the GDA in the context of the goals and objectives of the [National Spatial Data Infrastructure \(NSDI\) Strategic Plan](#).³ Based on an emerging cross-agency understanding of these requirements, the FGDC NGDA Theme community is undertaking efforts to establish governance processes that build on accomplishments, provide value, and ensure efficiency. In alignment with GDA requirements, the NGDA Theme Leads developed an NGDA Theme Strategic Plan template which was approved by the FGDC Steering Committee in July 2023. The template can be tailored to each theme with goals and objectives that are cross walked with all GDA requirements and the NSDI Strategic Plan. This template provides flexibility and allows agencies that manage NGDA data to

identify actions and accomplishments that align with the established goals, objectives, and anticipated outcomes, while being sensitive to technological, economic, and organizational constraints and opportunities of the agencies managing NGDA data. NGDA Theme Leads will develop and finalize their individual theme strategic plans by the end of FY2024.

The efforts documented in this report reflect that all FGDC NGDA Themes are making progress towards meeting GDA requirements.

Official Theme Related Information

As per the OMB Circular A-16 Supplemental Guidance (A-16 Guidance), official theme related information includes designated points of contact for NGDA Portfolio management, including Theme Leads and Executive Champions, and the official list of NGDA datasets. As further described in the sections below, this information is maintained on the [GeoPlatform](#)⁴ [NGDA Portfolio Community](#)⁵ site.

NGDA Theme Points of Contact

Reference: [USC 43 Sec 2805\(b\)\(3\)\(E\)\(i\)](#)

Section 2805(b)(3)(E)(i) requires lead covered agencies to “designate a point of contact within the lead covered agency who shall be responsible for developing, maintaining, coordination relating to, and disseminating data using the GeoPlatform” as part of administering the NGDA theme.

In accordance with the A-16 Guidance, NGDA theme personnel play an ongoing, vital role in the operation and maintenance of a theme. They are individuals who provide interdepartmental leadership and coordination at the NGDA theme level and work with NGDA dataset managers to facilitate portfolio development including activities associated with standards and guidance, among other things.

Traditionally, these roles have been coordinated through lead covered agencies with the FGDC Office of the Secretariat and the NGDA theme lead assuming a majority of NGDA theme responsibilities. Transitioning to meet specific GDA responsibilities provides opportunities for lead covered agencies to designate specific points of contact to coordinate an expanding portfolio of datasets across the NGDA theme and for greater dissemination of data through the GeoPlatform.

Theme and agency points of contact provided in Table 1 below are maintained to meet requirements from the [A-16 Supplemental Guidance Roles and Responsibilities](#).⁶ This information is kept up-to-date in the [NGDA Portfolio Community](#). From the NGDA Portfolio Community page, the NGDA Theme Leads and NGDA Theme Executive Champions lists are found on the [Contacts](#)⁷ page.

Land Use – Land Cover Theme Contacts	
Theme Lead(s):	Jim Ellenwood, U.S. Department of Agriculture, U.S. Forest Service Jon Dewitz, U.S. Department of the Interior, U.S. Geological Survey
Executive Theme Champion(s):	Ron Sequeira, U.S. Department of Agriculture David Carter, U.S. Department of the Interior

Table 1. Theme and Lead Covered Agency Points of Contact Involved in Theme Management.

NGDA Theme Datasets

The NGDA datasets and the agencies listed in Table 2 are provided as the official list of NGDA that currently populate the Land Use - Land Cover Theme. If the theme includes NGDA datasets managed by non-covered agencies, they are shown in bold. Support for GDA requirements by these non-covered agencies is very important to the success of the themes. The official list of NGDA Portfolio Datasets is maintained on the GeoPlatform in the [NGDA Portfolio Community](#). Each NGDA dataset also has a unique value assigned, called an NGDAID, that allows the dataset to be tracked throughout its lifecycle.

NGDAID	Land Use – Land Cover Theme NGDA Datasets	Agency
107	Coastal Change Analysis Program (C-CAP) High Resolution Land Cover and Change Data	U.S. Department of Commerce, National Oceanic and Atmospheric Administration
108	Coastal Change Analysis Program (C-CAP) Regional Land Cover Data and Change Data	U.S. Department of Commerce, National Oceanic and Atmospheric Administration
109	Cropland Data Layer	U.S. Department of Agriculture, National Agricultural Statistics Service
110	Forest Inventory and Analysis Database	U.S. Department of Agriculture, U.S. Forest Service
111	LANDFIRE Environmental Site Potential	U.S. Department of Agriculture, U.S. Forest Service
112	LANDFIRE Existing Vegetation Cover	U.S. Department of Agriculture, U.S. Forest Service
113	LANDFIRE Fire Regime Groups	U.S. Department of Agriculture, U.S. Forest Service
116	Monitoring Trends in Burn Severity Conterminous United States (Map Service)	U.S. Department of Agriculture, U.S. Forest Service
117	National Land Cover Database (NLCD) 2016 Products	U.S. Department of the Interior, U.S. Geological Survey
118	National Land Cover Dataset (NLCD) 2016 Impervious Products	U.S. Department of the Interior, U.S. Geological Survey
119	NLCD 2011-2016 Tree Canopy Cover Change CONUS (Image Service)	U.S. Department of the Interior, U.S. Geological Survey
120	North American Land Change Monitoring System (NALCMS) Collection	U.S. Department of the Interior, U.S. Geological Survey
192	LANDFIRE Forest Canopy Cover	U.S. Department of Agriculture, U.S. Forest Service

Table 2. NGDA Theme Datasets.

Meeting General Responsibilities – USC 43 Sec 2805(b)(2)

Reference: [USC 43 Sec 2805\(b\)\(2\)](#)

How is the Lead Covered Agency(ies) participating in ensuring the coordinated management of the Theme? (Select all that apply - see *Appendix A for the complete list of optional responses*)

- Agency participated in cross-agency activities related to the development of the Theme Strategic Plan Template
- Theme Executive Champion(s) attend NGDA Theme Community Meetings
- Theme Lead(s) attend NGDA Theme Community Meetings
- Theme Lead(s) participate in GDA Working Group meetings
- Theme Leads(s) review the outcomes from GDA Working Group meetings and provide feedback on approaches for GDA compliance
- Theme Lead(s) coordinate GDA compliance activities with Theme personnel
- Theme Lead(s) coordinate changes to the Portfolio inventory for Steering Committee approval
- Theme Lead(s) coordinate Theme Hub Sites on the GeoPlatform with established points of contact (e.g., Site Maintainers, site editors)
- Theme Lead(s) update Dataset Managers and other points of contact (e.g., metadata POC)
- Theme Lead(s) evaluate standards applicable to the Portfolio inventory?
- Theme Lead(s) communicate new and ongoing Portfolio Management activities and priorities with Dataset Managers in the Theme
- Steering Committee members coordinate with the Theme

Managing Theme-Related Content on GeoPlatform

During FY2023, the NGDA Themes transitioned from legacy GeoPlatform Theme sites to new [Hub-based Theme sites](#).⁸ As part of the transition, the themes established by consensus, the minimum required site content. All eighteen themes were transitioned and updated to reflect this minimum content requirement. Individual themes have the flexibility to publicly display and manage additional information from a variety of sources related to their theme. The new Hub sites provide end users, stakeholders, and partners with a place to find consistent theme-related information and access to NGDA datasets and services.

Land Use – Land Cover Theme Progress Toward Meeting Requirements

Background

This section provides Theme-related updates to information provided in previous annual reports and designates the Lead Covered Agency self-assessment for each of the four GDA NGDA Data Theme Requirements.

A. Geospatial Data Standards

The following table describes the GDA requirements for Section 2805(b)(3)(A) pertaining to geospatial data standards, and the Lead Covered Agency’s self-assessment for meeting those requirements.

GDA Requirement	<p>USC 43 Sec 2805(b)(3)(A) – Provide leadership and facilitate the development and implementation of geospatial data standards for the National Geospatial Data Asset data theme, with a particular emphasis on a data content standard for the National Geospatial Data Asset data theme, including by—</p> <ul style="list-style-type: none"> i. assessing existing standards; ii. identifying anticipated or needed data standards; and iii. developing a plan to originate and implement needed standards with relevant community and international practices— <ul style="list-style-type: none"> I. in accordance with Office of Management and Budget Circular A– 119, or any successor thereto; and II. consistent with or as a part of the plan described in subparagraph (B);
Lead Covered Agency Self-Assessment	Made Progress Toward Expectations

Note: The lead covered agency reports that no change was made to the self-assessment for this requirement from the prior year. FGDC efforts to address Sec 2805(b)(3)(A) are summarized under the “FGDC Portfolio-Level Progress Toward Meeting GDA NGDA Data Theme Requirements” section below.

Brief Summary

This section provides summary updates on NGDA Theme agency-level activities and efforts to support standards for the NGDA portfolio datasets. (Limit 5,000 characters, or approximately 1.5 pages)

Clarifying Text: The summary includes agency, sub-agency, or bureau-level progress and accomplishments associated with any new key activities, and those highlighted last year, including citations and resource links as necessary. Key activities cover any of the data within the Theme and include:

- ✓ development, maintenance, modification, or establishment of standards
- ✓ work that supports standards

As with last year's report, this also includes involvement in and accomplishments of groups in support of NGDA data standards, such as:

- ✓ FGDC subcommittees and working groups
- ✓ Agency working groups and partner efforts
- ✓ National and international voluntary consensus standards bodies
- ✓ International geospatial organizations supporting standards
- ✓ Other activities that support standards

NGDAID 107 High Resolution Land Cover and Change Data

NGDAID 108 Regional Land Cover Data and Change Data

U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA)

NOAA's Coastal Change Analysis Program (C-CAP) data, metadata, etc. is automatically harvested and populated into NOAA's geoplatform and the data.gov sites and can also be found on NOAA's Digital Coast website at <https://coast.noaa.gov/digitalcoast/data/ccaphighres.html>

NGDAID 109 Cropland Data Layer

U.S. Department of Agriculture, National Agricultural Statistics Service (NASS)

NARA approved records were NASS Surveys n1-355-86-001_sf115; USDA World Ag Outlook Board n1-355-91-001_sf115; and N1-355-07-1.

NASS worked with ARS/National Ag Library (NAL) to update our metadata records from FGDC-STD-001-1998:

1. A CDL NAL Geodata entry (<https://geodata.nal.usda.gov/geonetwork/srv/eng/catalog.search#/metadata/ed735798-c133-44f1-a977-ad0c0dcad514>)
2. Created a Geoplatform.gov record (<https://www.geoplatform.gov/metadata/698b8fae-30de-466d-ba91-8152de666e88>)
3. Updated our Data.gov entry (<https://catalog.data.gov/dataset/cropscape-cropland-data-layer>)
4. Updated metadata record to ISO 19139 (<https://geodata.nal.usda.gov/geonetwork/srv/api/records/ed735798-c133-44f1-a977-ad0c0dcad514/formatters/iso19139?output=xml>)
5. Updated metadata record to ISO 19115-3 (<https://geodata.nal.usda.gov/geonetwork/srv/api/records/ed735798-c133-44f1-a977-ad0c0dcad514/formatters/xml>)

NGDAID 110 Forest Inventory and Analysis Database

U.S. Department of Agriculture, U.S. Forest Service

The Forest Inventory and Analysis (FIA) program developed Standard Operating Procedures for making information publicly accessible pursuant to the information security standards and guidelines established by the National Institute of Standards and Technology (NIST), including the minimum requirements for federal information systems, in accordance with the Federal Information Security Modernization Act (FISMA) of 2014, 44 U.S.C. § 3551 et seq., Public Law (P.L.) 113-283.

NGDAID 111 LANDFIRE Environmental Site Potential
NGDAID 112 LANDFIRE Existing Vegetation Cover
NGDAID 113 LANDFIRE Fire Regime Groups
NGDAID 192 LANDFIRE Forest Canopy Cover

U.S. Department of Agriculture, U.S. Forest Service

The four LANDFIRE 2014 NGDA layers were brought to current FGDC metadata standards and reposted to data.gov and geodata.gov.

LANDFIRE 2022 Update release was complemented by publishing the data sets on USGS [ScienceBase](https://doi.sciencebase.gov/) (<https://doi.sciencebase.gov/>). This increases accessibility to USGS and positions the products/metadata for inclusion in data.gov and geodata.gov. The LANDFIRE Data Dictionary and LANDFIRE Definitions, Quality and Standards Annual Report were delivered. These documents serve as a guide to users about the products, Attribute Data Dictionaries (ADDs), data and metadata standards, and terminology.

NGDAID 117 National Land Cover Database (NLCD) 2016 Products
NGDAID 118 National Land Cover Dataset (NLCD) 2016 Impervious Products
NGDAID 119 NLCD 2011-2016 Tree Canopy Cover Change CONUS

U.S. Department of the Interior, U.S. Geological Survey

The NLCD publishes data to current FGDC metadata standards. Data are published to ScienceBase for preservation and metadata distribution. This data is reposted to data.gov. All NLCD products were initially listed as single data sets but have evolved from single date publication at a five-year timeframe to a three-year, to a two-year, and will now be moving to yearly publication in the coming year. NLCD will be working to update all themes to create a compilation-level record which better represents these NGDAs as a whole on a program level.

NGDAID 120 North American Land Change Monitoring System (NALCMS) Collection

U.S. Department of the Interior, U.S. Geological Survey

The North American Land Change Monitoring System is published by the Commission for Environmental Cooperation. The CEC receives funding from Canada through [Environment and Climate Change Canada](https://www.canada.ca/en/environment-climate-change.html) (<https://www.canada.ca/en/environment-climate-change.html>), Mexico through the [Secretaría de Medio Ambiente y Recursos Naturales](https://www.gob.mx/semarnat) (<https://www.gob.mx/semarnat>), and the United States (U.S.) through the [U.S. Environmental Protection Agency](https://www.epa.gov/) (<https://www.epa.gov/>). The USGS is responsible for the United States portion of this North American map and supplies data in good faith to the NGDA in the context of environmental, economic, and social linkages between Canada, Mexico, and the United States. The CEC facilitates effective cooperation and public participation to conserve, protect and enhance the North American environment in support of sustainable development for the benefit of present and future generations. Metadata meet international metadata standards. With NLCD as the sole provider for the United States portion of this data, we will be working to find ways to better represent this data as an NGDA in the coming year.

B. Nationwide Population of the Data Theme

The following table describes the GDA requirements for Section 2805(b)(3)(B) pertaining to a plan for nationwide population of the data theme, and the Lead Covered Agency’s self-assessment for meeting those requirements.

GDA Requirement	<p>USC 43 Sec 2805(b)(3)(B) – provide leadership and facilitate the development and implementation of a plan for nationwide population of the National Geospatial Data Asset data theme, which shall—</p> <ul style="list-style-type: none"> (i) include developing partnership programs with States, Indian tribes, institutions of higher education, private sector entities, other Federal agencies, and local governments; (ii) meet the needs of users of geospatial data; (iii) address human and financial resource needs; (iv) identify needs relating to standards, metadata for geospatial data within the National Geospatial Data Asset data theme, and the GeoPlatform; and (v) expedite the development of necessary National Geospatial Data Asset data themes;
Lead Covered Agency Self-Assessment	Made Progress Toward Expectations

Note: The lead covered agency reports that no change was made to the self-assessment for this requirement from the prior year. FGDC efforts to address Sec 2805(b)(3)(B) are summarized under the “FGDC Portfolio-Level Progress Toward Meeting GDA NGDA Data Theme Requirements” section below.

C. Establish Goals That Support the NSDI Strategic Plan

The following table describes the GDA requirements for Section 2805(b)(3)(C) pertaining to establishing goals that support the NSDI Strategic Plan, and the Lead Covered Agency’s self-assessment for meeting those requirements.

GDA Requirement	USC 43 Sec 2805(b)(3)(C) – establish goals that support the strategic plan for the National Spatial Data Infrastructure prepared under section 2804(c);
Lead Covered Agency Self-Assessment	Made Progress Toward Expectations

References: [NSDI Strategic Plan 2021-2024](#)

Note: The lead covered agency reports that no change was made to the self-assessment for this requirement from the prior year. FGDC efforts to address Sec 2805(b)(3)(C) are summarized under the “FGDC Portfolio-Level Progress Toward Meeting GDA NGDA Data Theme Requirements” section below.

Brief Summary

This section provides summary updates on NGDA Theme agency-level activities and efforts to support establishing goals that support the NSDI Strategic Plan. (Limit 5,000 characters, or approximately 1.5 pages)

Clarifying Text: The summary includes agency, sub-agency, or bureau-level progress and accomplishments associated with any new key activities, and those highlighted last year, including citations and resource links as necessary, that support that support the NSDI Strategic Plan and the NGDA datasets within the theme.

NGDAID 110 Forest Inventory and Analysis Database

U.S. Department of Agriculture, U.S. Forest Service

Establish Goals That Support the NSDI Strategic Plan

The Forest Inventory and Analysis (FIA) program has a [strategic plan](#) (2016) (<https://www.fs.usda.gov/research/understory/forest-inventory-and-analysis-strategic-plan>) which meets the requirements of the 2014 Farm Bill to formulate a new strategic plan for FIA and deliver it to Congress. The plan provides an overview of the FIA program and how it addresses the needs of the diverse communities that the program serves. FIA is planning to update and submit to Congress a new strategic plan by 2026.

FIA’s annual business reports have provided transparency and accountability to Congress, the public, and FIA’s partners since 1998. The [25th annual Forest Inventory and Analysis \(FIA\) Business Report](#) (<https://www.fs.usda.gov/research/understory/2022-forest-inventory-and-analysis-business-report>) is now available and summarizes FIA’s FY22 finances and outcomes.

D. Addressing User Needs

The following table describes the GDA requirements for Section 2805(b)(3)(D) pertaining to addressing user needs, and the Lead Covered Agency’s self-assessment for meeting those requirements.

GDA Requirement	USC 43 Sec 2805(b)(3)(D) – as necessary, collect and analyze information from users of geospatial data within the National Geospatial Data Asset data theme regarding the needs of the users for geospatial data and incorporate the needs of users in strategies relating to the National Geospatial Data Asset data theme;
Lead Covered Agency Self-Assessment	Made Progress Toward Expectations

Note: The lead covered agency reports that no change was made to the self-assessment for this requirement from the prior year. FGDC efforts to address Sec 2805(b)(3)(D) are summarized under the “FGDC Portfolio-Level Progress Toward Meeting GDA NGDA Data Theme Requirements” section below.

Brief Summary

This section provides summary updates on NGDA Theme agency-level activities and efforts to support addressing user needs. (Limit 5,000 characters, or approximately 1.5 pages)

Clarifying Text: The summary includes agency, sub-agency, or bureau-level progress and accomplishments associated with any new key activities, and those highlighted last year, including citations and resource links as necessary. Key activities that support incorporating user needs into strategies related to the NGDA datasets within the Theme include, processes that as necessary:

- ✓ collect and analyze the needs of users
- ✓ incorporate those needs of users into strategies relating to the NGDA datasets

NGDAID 107 High Resolution Land Cover and Change Data

NGDAID 108 Regional Land Cover Data and Change Data

U.S. Department of Commerce, National Oceanic and Atmospheric Administration

FGDC Agency Efforts to Support Addressing User Needs

NOAA’s Office for Coastal (OCM) has been coordinating our mapping efforts nationally (through groups like NSGIC and NACo) and directly with several states or regional groups in order to coordinate on their needs compared to what is being mapped within our Coastal Change Analysis Program (C-CAP) products. In several instances we have entered in agreements, or are currently discussing the possibility of agreements, with those states in order to share the cost of data development, increase the detail related to the number of land cover feature types mapped, or to extend the area of coverage past NOAA’s coastal mapping extent. This has included state contributions to NOAA map development and additional coverage area in the states of Washington, Wisconsin, South Carolina, and Louisiana (increasing NOAA’s footprint beyond the standard coastal mapping extent).

In addition, NOAA has been working with several states (Rhode Island and New Hampshire) and groups such as NOAA’s National Estuarine Research Reserve (NERR) System to develop map data that provides detail beyond C-CAP’s standard classification scheme.

FGDC Portfolio-Level Progress Toward Meeting GDA NGDA Data Theme Requirements

Background

This section highlights the actions that reflect FGDC Portfolio-level progress towards meeting GDA requirements.

Since the passage of the GDA, FGDC agencies and the Theme Leads have continued to evaluate options to consistently document progress and streamline reporting. In alignment with GDA requirements, the NGDA themes completed development of an NGDA Theme Strategic Plan template in June 2023, based on an existing strategic plan developed for the Transportation Theme. The template was approved by the FGDC Steering Committee for use by all themes on June 30, 2023, and a timeline for completion by the end of FY2024 was established. The template provides a consistent framework for agencies to develop goals, objectives, and actions that directly align with GDA requirements. Theme annual reports will highlight agency actions and accomplishments associated with the strategic plan in support of standards, nationwide population of NGDA datasets, strategic planning that aligns with the NSDI Strategic Plan and other guidance, and meeting user needs. Additional details for each of the four GDA NGDA Data Theme Requirements are included below.

A. Geospatial Data Standards

The FGDC is the lead entity in the executive branch of government for the development, implementation, and review of policies, practices, and standards relating to geospatial data. The GDA describes responsibilities related to geospatial standards for the FGDC and the agencies covered by the law (covered agencies). These responsibilities are reinforced by Office of Management and Budget Circular A-16 and OMB Circular A-119 (development and use of voluntary consensus standards).

The FGDC Executive Committee has established a Standards Task Team to evaluate the requirements, options, processes, resources, and decision structure required to establish an operational and sustainable FGDC standards process. This will include evaluating the FGDC's roles and responsibilities in geospatial standards with those of other standards making bodies, non-Federal participation, and considerations for standards supporting the National Spatial Data Infrastructure (NSDI).

The Executive Committee Standards Task Team is currently developing recommendations to update the FGDC's standards management process and will recommend a path forward for the FGDC. Refer to the FGDC Standards webpage (<https://www.fgdc.gov/standards>) for additional information.

B. Nationwide Population of NGDA Datasets

This section of the GDA calls on the FGDC agencies to “provide leadership and facilitate the development and implementation of a plan for nationwide population of the National Geospatial Data Asset data theme.” FGDC agencies evaluate and manage NGDA core datasets and other geospatial data to meet mission requirements and to address priority needs of the agency and the nation. The approved strategic plan template incorporates ongoing agency efforts to establish partnerships, conduct requirements and user needs analysis, identify options for appropriate human and financial resourcing,

and identify needs relating to standards for NGDA datasets in support of nationwide population of priority geospatial datasets.

In accordance with the GDA definition of NGDA data theme, the NGDA Theme Strategic Plan template will allow theme plans to focus on nationwide population of the core datasets within the theme and allow agencies to document, provide citations to, and report on efforts that facilitate meeting this requirement. NGDA Theme Strategic Plans covering the period from 2025-2027 will be due by the end of FY2024. Once completed, the strategic plans will be published on the GeoPlatform Theme sites.

C. Establish Goals That Support the NSDI Strategic Plan

The NSDI mission is to enable a “national network of geospatial resources that seamlessly integrate location-based information to serve the needs of the Nation and wider global interests.” The FGDC and the geospatial community have partnered for decades in building the National Spatial Data Infrastructure. Through this collaboration and modernization of geospatial data resources on the internet, combined with advances in technology and availability of mobile devices, situational awareness has increased. Having geospatial data and information available on demand for a wide variety of applications has become an expectation for most users. The vision of the NSDI Strategic Plan 2021-2024 of a “geo-enabled Nation and world for place-based decision making” is to support efficient resource allocation and provide a platform for partnerships to support high quality data. The FGDC is developing a new NSDI Strategic Plan which is scheduled to be finalized by the end of FY2024. The goals of the Theme Strategic Plans will subsequently be revised based on the new NSDI Strategic Plan.

The NGDA Theme Strategic Plan template described in the “Background” section above will allow agencies to identify actions and accomplishments that align with mission requirements, and support implementation of the NSDI Strategic Plan and its goals and objectives. For the NGDA portfolio, the NSDI Strategic Plan 2021-2024 objectives include efforts to: 1) streamline portfolio management practices and establish standards for NGDA themes and associated datasets, 2) develop common approaches to implement data acquisition and lifecycle management strategies, 3) advance the practice of integrating government and nongovernment data into national datasets, as necessary and 4) ensure that geospatial and other meaningful data can be easily integrated and used by stakeholders and the public.

D. Addressing User Needs

The NGDA Theme Strategic Plan (planned publication at the end of FY 2024) will identify the needs of users related to NGDA datasets within the Theme and provide strategies to meet those needs. Additionally, the GeoPlatform offers open geospatial hosting and services for US federal agencies with geospatial data assets to address the needs of a diverse user community, including government, non-government, and public users. Each NGDA Theme has a site within the GeoPlatform that hosts the NGDA datasets. These Theme sites, along with the GeoPlatform, provide access to open geospatial data assets including metadata, services, applications, and tools for an open-source geospatial suite of capabilities. These capabilities are consistent with the 'Findability, Accessibility, Interoperability, and Reuse (FAIR) Guiding Principles for scientific data management and stewardship'⁹ as part of meeting user needs. Through ongoing GeoPlatform modernization and FGDC efforts to improve and enhance NGDA metadata and services, users have access to analysis-ready data to meet their geospatial analytical needs.

Appendix A: Survey Picklist

This appendix provides the full set of available choices presented for the Meeting General Responsibilities – USC Sec.2805(b)(2) question.

How is the Lead Covered Agency(ies) participating in ensuring the coordinated management of the Theme? (Select all that apply)

- Agency participated in cross-agency activities related to the development of the Theme Strategic Plan Template
- Theme Executive Champion(s) attend NGDA Theme Community Meetings
- Theme Lead(s) attend NGDA Theme Community Meetings
- Theme Lead(s) participate in GDA Working Group meetings
- Theme Leads(s) review the outcomes from GDA Working Group meetings and provide feedback on approaches for GDA compliance
- Theme Lead(s) coordinate GDA compliance activities with Theme personnel
- Theme Lead(s) coordinate changes to the Portfolio inventory for Steering Committee approval
- Theme Lead(s) update Dataset Managers and other points of contact (e.g., metadata POC)
- Theme Lead(s) coordinate Theme Hub Sites on the GeoPlatform with established points of contact (e.g., Site Maintainers, site editors)
- Theme Lead(s) evaluate standards applicable to the Portfolio inventory
- Theme Lead(s) communicate new and ongoing Portfolio Management activities and priorities with Dataset Managers in the Theme
- Steering Committee members coordinate with the Theme
- No participation in ensuring coordinated management of the Theme
- Other [Textbox provided]

Appendix B: Brief Summary

Land Use – Land Cover Theme 2023 Accomplishment Highlights

LANDFIRE

The LANDFIRE program released their LF 2022 Update, a now yearly update. LANDFIRE's 2022 update was the first to include disturbances from the previous year and new fuel model assignments were developed to improve the portrayal of burnability in the first growing season post disturbance, or Time Since Disturbance 1 (TSD1).

LANDFIRE is now incorporating disturbance events within the fiscal year (October through September) to coincide with reporting by federal agencies (however improvements remain to ensure all data (disturbance events) are incorporated due to LF processing time frames).

LANDFIRE replaced best-pixel disturbance composites with percentile-based disturbance.

LANDFIRE also began using high frequency Harmonized Landsat Sentinel imagery for disturbance mapping creating clean percentile composite imagery for two seasons and three percentiles.

NOAA Coastal Change and Analysis Program (C-CAP)

NOAA's Office for Coastal (OCM) has been working towards establishing a first of its kind, high resolution land cover for all coastal areas, nationwide. FY23 Coastal Change Analysis Program (C-CAP) efforts have been focused on mapping of impervious surfaces, water extent, and woody canopy features (inclusive of tree and shrub vegetation) at a 1-meter spatial resolution.

This work is leveraging advanced deep learning artificial intelligence (AI) technology and high-resolution stereo imagery (such as that commonly acquired by contractors as part of the USDA's National Agricultural Imagery Program). Mapping is being accomplished in partnership with private industry firms, leveraging their capacity and expertise through NOAA's Coastal Geospatial Services Contract (CGSC) vehicle.

1-meter impervious, canopy, and water mapping is expected to be complete for coastal areas of the CONUS, the entire states of Alaska and Hawaii, as well as the Pacific and Caribbean U.S. territories in the first half of FY24. This data will be made publicly available through NOAA's Digital Coast website and are envisioned to support decision making and planning at the local and site level.

FY24 and FY25 work will be focused on utilizing these data to build out a full scheme C-CAP land cover (with all ~20 categories) for all coastal areas, so that the data may then begin to be operationally updated every four to six years after that.

Forest Inventory Analysis (FIA)

At the end of fiscal year 2023, 56% of the states had nationwide forest inventory data available online that contained field data that was at most 2 years old. This is an increase 9% from 2022. FIA continues to strive to catch up in field data collection from setbacks incurred due to COVID-19, difficulty in hiring field crews and contractors, and the effects of large wildfires in slowing down field data collection.

FIA also released the National Scale Volume Biomass (NSVB) volume, biomass, and carbon models in the Forest Inventory and Analysis Database (FIADB) and FIA supported analysis tools such as [EVALIDator and FIADB-API](#).¹⁰ The NSVB modeling system completes a 2015 Farm Bill priority which provides a more consistent and accurate accounting of biomass for the structural components of trees. It is the result of a collaborative effort between FIA, seven universities, and numerous industry stakeholders. The NSVB webpage (<https://www.fs.usda.gov/research/programs/fia/nsvb>) contains additional information on these equations and has a link to the post-print of the General Technical Report. State and National Forest System Regional summaries of differences, due to the change in methodology, are available online (https://charcoal2.cnre.vt.edu/nsvb_factsheets/index.html).

Also released was the [FIA Business Report Tableau Dashboard](#)¹¹ which provides interactive and visual summaries by fiscal year of operational funding and expenses, grants and agreements, partner contributions, and status of nationwide forest inventory plot data collection.

Publications include [Sampling and estimation documentation for the Enhanced Forest Inventory and Analysis Program: 2022](#) (<https://www.fs.usda.gov/research/treesearch/65551>) which provides detailed documentation on the underlying sampling and estimation procedures used by FIA. This document clarifies some aspects of existing documentation, provides the sampling and estimation methods used for key program areas including Urban FIA, National Woodland Owner Survey, Timber Products Output, and Carbon, and provides an examination of burgeoning estimation topics relevant to the FIA program and its users.

Additional tools published include the [FIA Land Resources Explorer](#)¹² which is an interactive, user-friendly suite of tools for viewing information on land use, land cover, and change. The dashboard provides an interface in which users can view land use estimates without needing to directly access or query the public FIA database (FIADB). The Explorer and Dashboard were produced in collaboration between FIA and the USDA Forest Service Geospatial Technology and Applications Center (GTAC). Information in the Dashboard is complemented by additional land resource monitoring and estimation from the Landscape Change Monitoring System (LCMS) and Image-based Change Estimation (ICE) products, will enable future enhancements such as including land use change, land cover, and land cover change.

Cropland Data Layer (CDL) National Agricultural Statistics service (NASS)

NASS is the federal statistical agency responsible for producing official data about U.S. agriculture. The 2022 Cropland Data Layer, which was published in February 2023 at thirty-meter resolution, provides timely, accurate and useful statistics in service to U.S. agriculture.

National Land Cover Database (NLCD)

The National Land Cover Database released the latest version of its land cover, impervious surface predictions, and percent forest canopy for the continental United States in June 2023. Historically, these were released at five-year intervals starting in 2001. This moved to two- and three-year intervals starting with the 2016 release to follow the five-year anniversary dates of previous releases. NLCD will be moving to yearly products for the product date of 2023, with likely release in late 2024. NLCD will be combining with the Land Change Monitoring Assessment and Projection (LCMAP) program to help facilitate this change. NLCD is relied upon by the nation to provide unbiased and accurate Land Cover

mapping that supports a myriad of governmental policy from greenhouse gases, to environmental studies, to wildlife habitat assessment, among hundreds of other cited policy uses.

North American Land Change Monitoring (NALCMS)

The North American Land Change Monitoring System released its 2020 product in March 2023. This tri-national product provides products every five years with the first thirty-meter product released in 2010. These products serve as a basis for many environmental studies and greenhouse gas quantification metrics. This new land cover map, presented by the CEC, harmonizes land cover classification into 19 comparable classes across Canada, Mexico and the United States. The NALCMS land cover classes are based on the Land Cover Classification System (LCCS) standard developed by the Food and Agriculture Organization (FAO) of the United Nations. It is relied upon by a number of international groups for North American quantification of Land Cover by the WHO, APO, CDC, WMO, among many other organizations.

Monitoring Trends in Burn Severity (MTBS)

[MTBS](https://burnseverity.cr.usgs.gov/glossary#mtbs) (<https://burnseverity.cr.usgs.gov/glossary#mtbs>) has released 1081 newly mapped fires from the 2021 and 2022 fire season. With this product release on <https://www.mtbs.gov/> and associated interactive viewer, <https://www.mtbs.gov/viewer/>, the total number of fires mapped by the program increased to 30,627.

Endnotes

- ¹ U.S. Code, Title 43 – Public Lands, Chapter 46: GEOSPATIAL DATA
<https://www.fgdc.gov/gda/43-usc-ch-46-geospatial-data-geospatial-data-act.pdf>
- ² FGDC GDA Information
<https://fgdc.gov/gda>
- ³ NSDI Strategic Plan
<https://www.fgdc.gov/nsdi-plan>
- ⁴ GeoPlatform
<https://www.geoplatform.gov/>
- ⁵ NGDA Portfolio Community Site
<https://ngda-portfolio-geoplatform.hub.arcgis.com/>
- ⁶ OMB A-16 Supplemental Guidance Roles and Responsibilities
<https://fgdc.gov/policyandplanning/a-16/key-roles-and-responsibilities-a16-supplemental.pdf>
- ⁷ NGDA Theme Contacts
<https://ngda-portfolio-community-geoplatform.hub.arcgis.com/pages/contacts>
- ⁸ NGDA Theme Hub Sites
<https://ngda-portfolio-community-geoplatform.hub.arcgis.com/pages/ngda-themes>
- ⁹ FAIR Principles
<https://www.go-fair.org/fair-principles/>
- ¹⁰ EVALIDator and FIADB-API
<https://www.fs.usda.gov/research/products/dataandtools/tools/evalidator-and-fiadb-api>
- ¹¹ FIA Business Report Tableau Dashboard
<https://www.fs.usda.gov/research/products/dataandtools/tools/forest-inventory-and-analysis-business-report-dashboard>
- ¹² FIA Land Resources Explorer
<https://experience.arcgis.com/experience/ddb54b68e915431182d406f9778694cb/page/Land-Resources-Dashboard/>