



**2022 Lead Covered Agency
NGDA Theme Annual Performance Report
and Self-Assessment**
for
Geology Theme

Geospatial Data Act of 2018
Section USC 43 Sec 2805(b)(3) 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](#).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 2022 (FY2022), October 1, 2021 through September 30, 2022. 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 third 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 FY2022 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 third 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 [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. The NGDA Theme Leads established a working group to develop a single NGDA Theme Strategic Plan template that can be tailored to each theme with goals and objectives that are cross walked with all GDA requirements and the NSDI Strategic Plan. The aim of the adopted plan template is to provide flexibility, allowing agencies who manage NGDA data, to identify actions and accomplishments that align with the established goals, objectives, and anticipated

outcomes, yet are sensitive to technological, economic, and organizational constraints and opportunities of the agencies managing NGDA data. The FGDC team also plans to incorporate a simple approach for annual reporting on implementation plans and status of the identified actions.

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 [NGDA Portfolio Community](#)⁴ 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, among other things, portfolio development including activities associated with standards and guidance.

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](#).⁵ 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 under the NGDA Portfolio drop down menu.

Geology Theme Contacts	
Theme Lead(s):	Dave Soller, U.S. Department of the Interior, U.S. Geological Survey Paul Godfriaux, U.S. Department of the Interior, Bureau of Ocean Energy Management
Executive Theme Champion(s):	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 Geology 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](#) under the NGDA Portfolio drop down menu. Each NGDA dataset also has a unique value assigned, called an NGDAID, that allows the dataset to be tracked throughout its lifecycle.

NGDAID	Geology Theme NGDA Datasets	Agency
51	Federal Outer Continental Shelf (OCS) Sand and Gravel Borrow Areas (Lease Areas)	U.S. Department of Commerce, National Oceanic and Atmospheric Administration
52	USGS National Geologic Map Database Collection	U.S. Department of the Interior, U.S. Geological Survey
53	Outer Continental Shelf Oil and Natural Gas Wells – Alaska Region NAD 83	U.S. Department of the Interior, Bureau of Ocean Energy Management
54	Outer Continental Shelf Oil and Natural Gas Wells – Gulf of Mexico NAD 27	U.S. Department of the Interior, Bureau of Safety and Environmental Enforcement
55	Outer Continental Shelf Oil and Natural Gas Wells – Pacific OCS Region NAD 83	U.S. Department of the Interior, Bureau of Ocean Energy Management
56	BOEM Seismic Water Bottom Anomalies – Gulf of Mexico – Gulf of Mexico NAD27	U.S. Department of the Interior, Bureau of Ocean Energy Management

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)

- 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

Managing Theme-Related Content on GeoPlatform

During FY2022, the GeoPlatform transitioned from WordPress to Esri ArcGIS Hub sites to house and manage Theme related content. Theme Community Hub sites are a work in progress, allowing Themes to publicly display information from a variety of sources.

Geology Theme Progress Towards 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

FGDC Agency Efforts to Support NGDA Data Standards

This section provides summary updates on NGDA Theme agency-level activities and efforts to support standards for the NGDA portfolio datasets.

Brief Summary

The following is a brief update and description of FY2022 actions, progress, and accomplishments regarding activities that address Section 2805(b)(3)(A). (Limit 5,000 characters, or approximately 1.5 pages)

Clarifying Text: 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

BOEM and USGS continued to coordinate with other Federal partners, the State Geological Surveys, and Geological Surveys in other countries, to identify potential refinements to existing FGDC and draft standards (e.g., GeMS, the Geologic Map Schema) and to support widespread implementation. Attended numerous meetings and information sessions related to NGDA Theme content and standards development.

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> <p>(i) include developing partnership programs with States, Indian tribes, institutions of higher education, private sector entities, other Federal agencies, and local governments;</p> <p>(ii) meet the needs of users of geospatial data;</p> <p>(iii) address human and financial resource needs;</p> <p>(iv) identify needs relating to standards, metadata for geospatial data within the National Geospatial Data Asset data theme, and the GeoPlatform; and</p> <p>(v) expedite the development of necessary National Geospatial Data Asset data themes;</p>
Lead Covered Agency Self-Assessment	Made Progress Toward Expectations

FGDC Agency Efforts to Support Plans for Nationwide Population of NGDA Datasets

This section provides summary updates on NGDA Theme agency-level activities and efforts to support plans for nationwide population of NGDA Datasets.

Brief Summary

The following is a brief update and description of FY2022 actions, progress, and accomplishments regarding activities that address Section 2805(b)(3)(B). (Limit 5,000 characters, or approximately 1.5 pages)

Clarifying Text: 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 nationwide population of NGDA datasets within the Theme include:

- ✓ existing or planned partnership programs with a wide range of stakeholders supporting NGDA datasets within the Theme
- ✓ processes, or plans for processes, in place to meet the needs of users. Note that Section D of this report also covers efforts to collect and analyze user needs and incorporation of those needs into agency strategies.
- ✓ existing or planned program and data management plans in place that address human and financial resource needs
- ✓ processes, or plans for processes, in place to identify needs related to standards
- ✓ any other processes in place that support nationwide population of datasets (e.g., data quality control processes that cover data collected by external stakeholders)

BOEM and USGS continue to make progress in updating content for the various Geology themes. For the National Geologic Map Database, this is done in cooperation with the State Geological Surveys. As part of agency responsibilities, general and technical support for data users in both the public and private sectors represents a significant effort that yields large benefits in terms of both outreach and improvement of content and standards development. The NGDA helps foster cooperation and data sharing between Federal agencies, and with the State Geological Surveys.

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](#)

FGDC Agency Efforts to Support Establishing Goals That Support the NSDI Strategic Plan

This section provides summary updates on NGDA Theme agency-level activities and efforts to support establishing goals that support the NSDI Strategic Plan.

Brief Summary

The following is a brief update and description of FY2022 actions, progress, and accomplishments regarding activities that address Section 2805(b)(3)(C). (Limit 5,000 characters, or approximately 1.5 pages)

Clarifying Text: 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.

The USGS and State Geological Survey partners in the National Geologic Map Database (NGMDB) made significant progress in both population of the National collection of geologic maps, databases, and associated geoscience reports, and in their dissemination to the public. Further, implementation of the GeMS schema for geologic map databases evolved from its initial evaluation phase over the past decade, to a more full-scale effort across the Nation's geoscience agencies. BOEM continued to update content in its NGDA datasets to ensure that the most up-to-date data are available to the public.

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

FGDC Agency Efforts to Support Addressing User Needs

This section provides summary updates on NGDA Theme agency-level activities and efforts to support addressing user needs.

Brief Summary

The following is a brief update and description of FY2022 actions, progress, and accomplishments regarding activities that address Section 2805(b)(3)(D). (Limit 5,000 characters, or approximately 1.5 pages)

Clarifying Text: 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

The USGS and State Geological Survey (SGS) partners in the National Geologic Map Database (NGMDB) made significant progress in both population of the National collection of geologic maps, databases, and associated geoscience reports, and in their dissemination to the public. Further, implementation of the GeMS schema for geologic map databases evolved from its initial evaluation phase over the past decade, to a more full-scale effort across the Nation's geoscience agencies. BOEM continued to update content in its NGDA datasets to ensure that the most up-to-date data are available to the public.

FGDC Portfolio-Level Progress Towards 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. Development of a NGDA Theme Strategic Plan template, based on an existing strategic plan developed for the Transportation Theme, is underway. The template will provide 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 meeting user needs. Additional details for each of the four GDA NGDA Data Theme Requirements are included below.

A. Geospatial Data Standards

To ensure continuity of standards development including maintenance and implementation of existing standards, the FGDC Steering Committee approved the following Position Statement on Standards on December 17, 2021:

The Geospatial Data Act of 2018 (GDA) establishes the Federal Geographic Data Committee (FGDC) as 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). In the near future, FGDC will reestablish and resource a sustainable standards process, including implementing supporting governance requirements, updating and improving legacy processes, and validating standards for use as required under the GDA. Agencies should continue, to the extent possible in lieu of an active standards process, to develop, review, update, and achieve compliance with existing and pending standards, and become members of the appropriate FGDC standards body when active.

The NGDA Theme Strategic Plan template will include information that supports Theme related standards and support for the FGDC standards process to ensure overall continuity in standards across all NGDA Themes.

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 manage NGDA core datasets and other geospatial data to meet mission requirements and to address priority needs of the agency and the nation. The strategic plan

template will incorporate 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 being developed 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.

C. Establish Goals That Support the NSDI Strategic Plan

The FGDC and the geospatial community have partnered for decades in building the National Spatial Data Infrastructure. Much has been accomplished and exploitation of the internet, combined with advances in technology and availability of mobile devices, have increased public awareness that everything happens somewhere. Having geospatial data and information available at people's fingertips 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" provides a platform for partnerships that help ensure required data is the best possible data. FGDC has adopted as its mission 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 NGDA Theme Strategic Plan template being developed 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 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.

D. Addressing User Needs

The NGDA Theme Strategic Plan template will allow FGDC agencies to identify efforts to understand the needs of users and incorporate those needs into strategies relating to the NGDA datasets and themes.

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 has published a geospatial strategy as required by the GDA
- No participation in ensuring coordinated management of the Theme
- 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) communicate new and ongoing Portfolio Management activities and priorities with Dataset Managers in the Theme
- Steering Committee members coordinate with the Theme
- Other [Textbox provided]

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 NGDA Portfolio Community Site:
<https://ngda-portfolio-community-geoplatform.hub.arcgis.com/pages/portfolio>
- ⁵ OMB A-16 Supplemental Guidance Roles and Responsibilities:
<https://fgdc.gov/policyandplanning/a-16/key-roles-and-responsibilities-a16-supplemental.pdf>